DOCUMENT RESUME

ED 287 424 HE 020 884

AUTHOR	McGuinness, Kathleen, Comp.
TITLE	Non-Traditional and Interdisciplinary Programs. Selected Papers from the Annual Conference on Non-Traditional and Interdisciplinary Programs (4th, Arlington, Virginia, June 30-July 2, 1986).
INSTITUTION	George Mason Univ., Fairfax, Va. Div. of Continuing Education.
PUB DATE	Jul 86
NOTE	303p.; For other conference proceedings, see HE 020 885-887 and HE 020 907-908.
PUB TYPE	Collected Works - Conference Proceedings (021)
EDRS PRICE	MF01/PC13 Plus Postage.
DESCRIPTORS	Adjunct Faculty; Adult Students; College Curriculum; College Science; *Continuing Education; *Experiential Learning; General Education; Graduate Study; Higher Education; *Interdisciplinary Approach; *Liberal Arts; *Nontraditional Education; Prior Learning; Quality Control; *School Business Relationship; Sciences; Student Personnel Services

ABSTRACT

A total of 50 papers are presented from the George Mason University (Virginia) fourth annual conference on nontraditional and interdisciplinary programs. They are grouped in the following major categories: adjunct faculty, corporate/university linkages, experiential learning, graduate nontraditional programs, interdisciplinary program issues, interdisciplinary programs in science, liberal studies, quality assurance in nontraditional education, student support services, and issues in continuing education. Among the papers are: "A Model for Retaining Adjunct Faculty in a Non-Traditional Program" (S. M. Johnstone and P. H. Hamlin); "The Role of Adjunct Faculty in Incarcerated Settings" (E. S. Weeks, Jr., J. M. Watson, B. R. Church); "Off-Campus College: A Credit Program for Corporate Employees" (M. Bomboy); "Education as a Strategic Resource for Small Growth Companies" (A. M. Brett); "Teaching College Courses in On-Site Corporate Settings to Professional Level Staff" (G. H. Gardner); "Theory Seminars: Building on Experiential Learning" (L. S. Harvey); "Telecommunications-Based Learning: The Final Educational Frontier?" (B. A. Centini, J. A. Scigliano); "The Career Opportunities Institute: Development Program for Ph.Ds in the Arts and Sciences" (J. Zimbelman); "Marketing Interdisciplinary Programs in Agriculture, Business, Public Administration and French" (R. L. Frautschi); "Service Learning in an Interdisciplinary, Collegiate Program: Process and Outcomes" (C. H. Hoare, H. Nashman); "Cultures Past and Present: A New Approach to Broadening the Curriculum" (D. C. Wilcox); "Uniting the Sciences and Music: An Interdisciplinary Approach" (L. Berry, Jr.); "Science and Society: An Interdisciplinary General Degree Requirement" (D. J. Dietrich); "Planning a New Liberal Studies Curriculum" (J. S. Zangrando); "External Review: A Mechanism for Monitoring the Content of Adult and Continuing Education Offerings" (R. W. Campbell); "Meeting the Needs of Non-Traditional Students for Non-Traditional Programs" (H. Smith); "Mediating Conflicts in Advanced Placement" (M. R. Duperre); "Semester at Sea: An Innovative Approach to Learning" (C. Stone). (LB)

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ED287424

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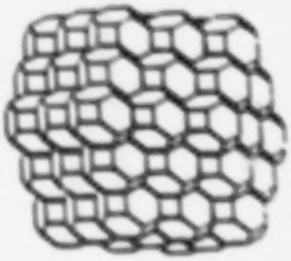
Non-Traditional and Interdisciplinary Programs



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KATHLEEN MCGUINNESS

HE 020 884

SELECTED PAPERS FROM THE FOURTH ANNUAL CONFERENCE ON
NON-TRADITIONAL AND INTERDISCIPLINARY PROGRAMS
HELD IN ARLINGTON, VIRGINIA

JUNE 30 - JULY 2, 1986

SPONSORED BY THE DIVISION OF CONTINUING EDUCATION

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

FOREWORD

This volume of proceedings represents the work and wisdom of practitioners in interdisciplinary and nontraditional education. George Mason University and its Division of Continuing Education are pleased to compile these proceedings of the Fourth Annual National Conference on Nontraditional and Interdisciplinary Programs. The continuing interest of our colleagues in sharing new and innovative programming and practices enables us to host what has become an on-going series. We are honored to provide this forum for educators to exchange ideas.

Nontraditional and interdisciplinary study is perhaps the oldest format for formal education. The first students literally sat at the feet of mentors/scholars who lectured and debated the issues of life and knowledge drawing on what is now divided into many disciplines. This interaction, combined with experiential learning, is what the papers in these proceedings seek to rediscover and to promote.

George Mason's conference on nontraditional and interdisciplinary programs was originally the vision and effort of Ms. Sally J. Reithlingshoefer, Assistant Director, Division of Continuing Education, and Dr. James W. Fonseca, then Director of Individualized Study Degree Programs. This year Ms. Kathleen McGuinness, Acting Director of Individualized Study Degree Programs, assumed the leadership with Sally Reithlingshoefer. The major contributors are the authors of these papers, and I am grateful for our opportunity to be partners with them in expanding our understanding of nontraditional and interdisciplinary education.

Sincerely,

Robert T. Hawkes, Jr.

Robert T. Hawkes, Jr.
Dean
Division of Continuing Education

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A MODEL FOR RETAINING ADJUNCT FACULTY IN A NON-TRADITIONAL PROGRAM

Sally M. Johnstone and Paul H. Hamlin

The University of Maryland University College is the campus of The University of Maryland serving the non-traditional student. The Statewide Undergraduate Programs provide instruction for academic credit to over 18,000 adult part-time students at some 40 locations throughout Maryland and metropolitan Washington. We use part-time faculty to teach the vast majority of our 600-700 undergraduate classes each semester. While many of our faculty hold full-time positions at other campuses of The University of Maryland or other academic institutions, they teach on a part-time basis for University College. One of the most critical concerns of working with a large adjunct faculty is continuity in the curriculum. Consequently, we have developed a program to encourage the retention of our faculty.

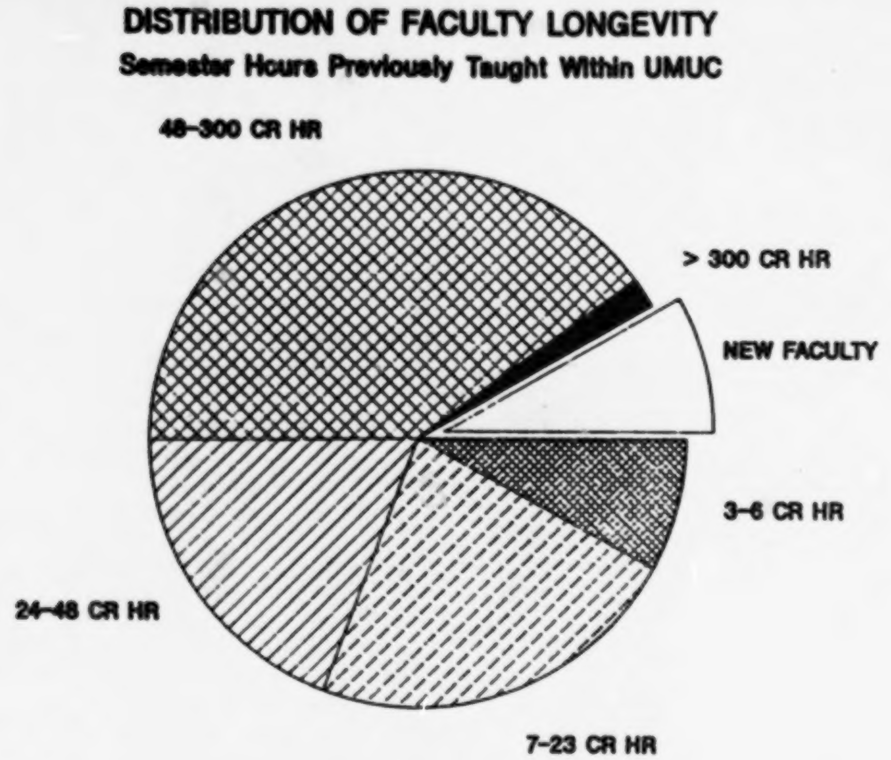
Our success in retaining faculty is evident from data gathered during our Spring Semester, 1986. We had 613 people teaching undergraduate classes during that time, and of these, 92% were returning to teach with University College. The distribution of our faculty longevity during the spring semester is depicted in Figure 1.

Services Supporting Retention

Retention is a factor that influences many policies and programs designed for the faculty. In general, all our services to faculty are designed to take a little of the burden off the lecturer who is teaching on a part-time basis and does not have access to traditional facilities. In addition, since our adjunct lecturers usually work at other jobs during the day, we have tried to save them as much time as possible so they can continue to teach for us and not have the quality of their classroom work suffer.

One of the most important elements of our retention program is providing high-quality logistical support for our lecturers. Our Faculty Services unit provides typing and duplication of syllabi, tests, and other class-related documents. They also produce transparencies, arrange to rent films, and supply the faculty with audio-visual equipment.

For our courses that require students to use our computing facilities, we provide faculty members with well qualified Teaching assistants (TA). These TA's usually handle all the logistical arrangements for students' computer accounts, hold office hours in the lab to assist the students with their programming assignments, and assist



DISTRIBUTION OF FACULTY LONGEVITY

Semester Hours Previously Taught Within UMUC

Faculty Teaching Spring, 1986 (n = 613)

Figure 1. Distribution of the University College faculty by the number of semester hours previously taught at The University of Maryland University College.

the faculty members in the grading process. The use of the TA's allows our lecturers to devote more time to the sophisticated elements of the teaching process and removes some of the responsibility for the more routine tasks.

Eighty-five percent of our classes are not computer-related, so most of our faculty do not have TA's. However, when the number of students in any class increases above the usual limit, a grader is hired to assist the faculty member in evaluating students' work. In cases when a hired grader may not be appropriate, as in an English writing class, we limit enrollment.

Since some of our faculty teach at locations quite remote from the College Park campus, we also provide assistance with travel. We pay the travel expenses for the use of a personal car, or in unusual cases we arrange to have the lecturer use a University car. When travel to a class is excessive, we also provide a travel bonus to help compensate the faculty member for his or her time spent traveling.

Academic Support

Each discipline within University College is treated a little differently according to how closely the course is associated with a traditional academic department on another campus of The University of Maryland. In those disciplines that do not have any counterpart on these other campuses, we provide special academic support services. These services vary from special meetings to individual assistance.

We also offer general academic support to all faculty regardless of discipline. All our faculty are invited to attend our biannual faculty meetings where we address issues of broad concern to teachers of adult college students. Our Office of Faculty Development also holds periodic teaching skills workshops. There are approximately one of these evening sessions each month during the academic year. They include such topics as: Syllabus construction on microprocessors, presentation skills, test construction, and special classroom techniques.

In some of the less traditional disciplines such as Technical Management, we have contracted with members of the faculty to act as a coordinator for the discipline. These coordinators help recruit new lecturers and serve as a valuable resource to continuing faculty members. They chair discipline meetings that are designed to increase communication among individuals teaching in that area and also work with administrators to solve any problems associated with the discipline.

Some new faculty members request more support than can be offered by an academic coordinator. Several of our more experienced faculty members have agreed to act as mentors to the newer lecturers. Each mentor discusses course material with the new teacher and assists in whatever ways he or she can. The mentor is also available to the new instructor throughout the semester for telephone consultations.

To assist all our faculty teaching in the less traditional disciplines such as Computer Applications, Technical Management, etc., our Center for Instructional Development and Evaluation produces Course Guides. These Guides convey the sense and structure of a course to faculty who may not have had direct academic experience with these contemporary disciplines.

All new faculty members, regardless of discipline, are invited to our orientation meeting. This structured program outlines all the services we offer for faculty members and allows them to meet some of their peers. During this meeting our Faculty Development program is introduced. Besides the workshops already mentioned, this program includes voluntary video taping of classes, student evaluations, and peer visits to the classroom. There are also opportunities to serve on various faculty committees organized by the Faculty Development Coordinator.

Recognition

Part-time teachers need to be acknowledged for activities which support the goals of their institution. Since University College is a teaching institution, teaching excellence is the focus of our recognition. This is accomplished in several ways. On the grand scale, we give a lecturer an Excellence in Teaching Award at the graduation ceremonies each semester. Those faculty members whose student evaluations indicate they are exceptionally good receive a letter of commendation. On the more mundane level, we survey our lecturers annually to determine what courses they most prefer to teach. This makes it more likely that each lecturer will be assigned to teach a class about which she or he would be most enthusiastic. This opportunity for direct involvement in the decision-process has been very well received by our faculty.

Finally, we recognize the faculty's longevity in two ways. Each lecturer is given automatic step-increases in their pay as they teach more courses. In addition, after three years and at least 15 courses taught, a lecturer may apply for promotion. The promotion procedure involves evaluating teaching performance, participation in University College programs, and related professional activities.

Summary

We maintain a high retention rate by providing our adjunct faculty with logistical and academic support services, making them feel like members of the University College community, listening to their preferences, and recognizing their continued service.

Sally M. Johnstone is Assistant Dean, Undergraduate Faculty, Statewide Undergraduate Programs, The University of Maryland and Paul H. Hamlin is Associate Dean Statewide Undergraduate Programs, The University of Maryland, University College.

SELECTING, MOTIVATING AND EVALUATING ADJUNCT INSTRUCTORS IN OFF-CAMPUS LOCATIONS
A MODEL FOR SUCCESSFUL COMMUNICATION

Deborah B. Robin

The extensive use of adjunct instructors to teach in off-campus locations necessitates special considerations. Factors such as selection, motivation, continuing communication and evaluation are particularly important to maintain quality in academic settings away from the main campus. Nova University, a pioneer in non-traditional and off-campus higher education has developed a cost-effective and practical model for working with adjunct instructors.

This paper will present a discussion of how to identify, interview and select the best qualified adjuncts; how, when and what to tell adjuncts so that they can view effective representatives of the university; how to institute a plan for regular telephone contacts between the main campus administration and off-campus adjuncts; how to evaluate adjuncts; and how develop those who have weaknesses but show potential.

The processes used by Nova University's off-campus undergraduate cluster program have been developed over time and have resulted in rewarding educational experiences for the students and successful relationships between adjunct instructors and the administration on the main campus.

How to Identify, Interview and Select

As a first step in a new geographic area, we try to identify as many qualified adjunct teaching candidates as possible. Two methods that have proven successful are calling the appropriate academic division chairs at local colleges and placing large ads in the Sunday edition of the local newspaper. In both cases we seek to have resumes mailed to the main campus adjunct faculty coordinator (a position of crucial importance in our success).

After screening the resumes, we set up a series of personal interviews with only the candidates who meet our standards (previous adult teaching experience, minimum of a masters degree in field, practical/professional experience). Two or more administrators travel to the off-campus site and conduct the interviews in a hotel board room.

Each member of the interview team completes a rating sheet on each candidate (sample attached). After each interview a consensus is reached whether the individual should be hired in the future. Obviously a key factor in the decision is the potential adjunct's personality and ability to communicate. It is helpful to make note on the person's physical characteristics so that you will remember him/her later.

At the time of the interview we ask the potential candidates about their philosophy and experience in teaching adult students. Those who do not understand the difference in approach to the traditional vs. non-traditional students usually encounter difficulties teaching adults.

Although it may seem impossible to learn enough about a potential instructor in a 30 to 45 minute interview, in reality we have found that our instincts about a person's chance of being successful in the classroom are usually correct. Someone who is quiet and shy, or who has difficulty communicating to a small group of people will probably be the same or worse in a classroom situation. On the other hand, and individual who is confident, personable, and enthusiastic is likely to be well received by students.

How, When and What To Tell Adjuncts

One problem frequently encountered with adjunct faculty is their lack of knowledge about the institution and its policies. We have found that giving a fact sheet with a minimum of general information in addition to an oral review at the time an individual is hired is very helpful. Special information about the type of students, the program's unique philosophy, the institution's attendance policy, and the name of the main campus contact person should be stressed. Sending too much information usually results in little being read or remembered.

Mailing the various necessary items one at a time over a period of weeks prior to the start of class tends to increase the likelihood that the adjunct will actually read the information sent.

It is important to reinforce and review essential and/or unique information both verbally and in writing to assure that the adjunct has gotten the message.

A Plan for Telephone Contacts

In an effort to keep in communication with the adjunct faculty members, Nova initiated a plan for regularly scheduled telephone contact. Each instructor will be called by the same administrator a minimum of four times during the term: at the point of hire (usually three months before the start of class), immediately before the course begins, a few weeks after the course is in progress, and at the end of the course. This constant contact has proven very helpful in making the instructor feel that he is a part of the institution even if he is not in the same city. Furthermore, we often find that the individual has a question or a problem which would not have surfaced if we had not initiated the call.

Because the telephone contact plan is a time consuming one, we have hired a "Faculty Coordinator" who maintains relationships with all the adjuncts. Of course he can forward calls and requests to other departments when appropriate.

Evaluating and Developing Adjuncts

All courses and instructors are evaluated by the students at the next to last class session. In addition, we receive more immediate feedback from the local cluster coordinators and students if there is a problem with an instructor. Urgent problems are handeled through telephone discussion to try to resolve the situation to everyone's satisfaction.

Instructors are mailed copies of the computerized summary of the evaluation (these include subjective statements written by the students). The faculty coordinator who has had the telephone contact with the instructor writes a personal note assessing the evaluations and offering suggestions for improvement if necessary.

An instructor's evaluation summary which includes minor negative comments should be followed-up by a personal contact. The adjunct will benefit from knowing that generally the evaluations are positive but there is an area which could be improved. Some examples are: frequent early class dismissal, inappropriate language, habitually starting class late, ambiguity about grading criterion , poorly written examination questions, and allowing particular students to dominate class discussions each session. It is usually wise to specifically point out these negative comments to the instructor and ask for his or her comment on the matter. In many cases and instructor will make suggestions for his or her own improvement if asked.

More serious complaints or problems may be too difficult to overcome. In these cases, the adjunct is not offered another teaching contract.

Conclusion

Communication is the key to success in off-campus instruction. The adjunct faculty must understand what is expected of him, what the institution's policies and unique characteristics are, and who he should contact when questions arise. Continuing contact is essential because it improves effectiveness and morale. Constructive feedback after the course ends can result in a more positive teaching experience the next time.

RATING SYSTEM *

EDUCATION:
0 = Lacks graduate hours and professional experience would not justify
1 = Master's; 18 hrs.
2 = Doctorate
* = Masters or Doctorate, but lacks 18 hours in field; good professional experience

TEACHING EXPERIENCE:
0 = None
1 = No college, but other
2 = College, no adult
3 = College, adults
4 = Nova teaching
Also indicate whether extensive or little teaching experience

PROFESSIONAL EXPERIENCE:
0 = None
1 = Some (includes little)
2 = Extensive

PERSONALITY:
0 = Dud, or creepy, or bad vibes, or boring, etc.
1 = Acceptable, but a bit plain - nothing extra
2 = Outstanding (very positive vibes)

ARTICULATENESS:
0 = Inarticulate
1 = Acceptable
2 = Very well spoken

* Comments, in addition to numbers, will be helpful

Deborah B. Robin, Ed.D. is Director of Off-Campus Undergraduate Programs at Nova University, 3301 College Avenue, Ft. Lauderdale, Florida 33314.

THE ROLE OF ADJUNCT FACULTY IN INCARCERATED SETTINGS

Edward S. Weeks, Jr.,
Joanna M. Watson, and
Barbara Ryan Church

Introduction

The idea of college education programs for incarcerated populations is a relatively new concept in context with the history of higher education in the United States. The first post-secondary education institution, Harvard University. was founded over three centuries ago, but it was not until the mid-twentieth century that college courses were introduced to the prison environment. Southern Illinois University began instruction in the Illinois prison system in 1953 (Herron, 1974). In 1970, though, a survey conducted by the Virginia Task Force on College Prison Programs for Corrections revealed that college prison education programs (sometimes referred to as post-secondary correctional education programs) were being operated in forty-seven states (Morris, 1972). The total number of states has increased at least by one when the first college prison education program began in Georgia in 1973 (Weeks and Coltharp, 1985).

The Virginia Task Force's 1970 survey provides a typology for the classification of college prison education programs. Under the rubric of this system, programs are classified as: (1) Correspondence Studies: courses in which the student enrolls in an independent study mode via postal delivery; (2) Education or Study Release: courses a student attends on a college campus; and (3) Extension Courses: courses provided within the setting of a correctional facility. The survey revealed that the correspondence course was the mode most frequently utilized for providing college courses to inmate students. The extension course ranked a close second while educational/study release ranked a very low third (Morris, 1972).

Robert Armour (1972) notes that the educational release program, which allows inmates to attend campus classes, is the most useful of the three cited modes of course delivery. It enables an inmate student to interact directly with other students as well as the course instructor--a feature highly desirable, if not necessary, in the educational experience (Morris, 1982). Very few inmates qualify, however, for this form of educational activity inasmuch as safety and security dominate considerations for release of the incarcerated student to the campus.

Correspondence courses on the other hand offer a viable alternative to meeting the educational needs of inmates. Course study can be conducted in the correctional setting and it provides a great deal of flexibility for scheduling, a characteristic very desirable in attempting to meet educational needs in an environment as regimented as a correctional facility. The shortcomings of this mode of instruction are that (1) the student must be highly motivated to complete the course, (a characteristic sadly lacking in a population where career maturity and aspiration levels are low), and (2) student interaction is non-existent. Because of these shortcomings, correspondence studies represent the least desirable of the three types of college prison education programs, even though it was noted by Morris as the mode most frequently used.

Extension courses, where faculty instruct in the correctional facility, present a viable alternative to educational/study release and correspondence studies programs. While extension courses do not provide the degree and variety of educational experiences one might receive on campus, college prison education programs utilizing extension courses to overcome the safety and security considerations inherent in educational/study release programs and they also provide a level of student interaction not afforded by correspondence studies.

Extension Course Program Considerations

Faculty working in incarcerated settings face a variety of problems normally not associated with post-secondary education programs. Such problems include, but are not limited to:

1. Regimentation of inmate life which demands that courses be scheduled to fit the schedule of the correctional facility, not the college nor the instructor. Many correctional facilities are work camps where activities are controlled twenty-four hours a day and little time is available for educational activities.

2. Restrictions on when and where students may study which affects a student's ability to prepare for class(es). Inmate students are seldom released from work assignments to pursue studies and, when they find time to study, privacy is usually lacking. Quite often class preparation must compete with limited periods available for rest and recreation. Overcrowding conditions and peer pressure to seek recreational and leisure pursuits combine to create conditions not conducive to class preparation. It requires a great deal of dedication for an inmate student to participate in and successully complete a college course in an incarcerated environment.

3. Program quality must be consistent with the on-campus program. Limited resources, reference materials, and other instructional materials inhibit the incarcerated student's ability to fully prepare for any given course. Some courses, especially lab science courses, present special problems and demands to the instructor.

A successful college prison education program working primarily in an extension course mode requires an excellent working relationship between the college and the correctional institution. On the correctional side of the relationship, the warden and the educational staff must take a direct interest in the program and make available facilities for classroom use. They also must emphasize the importance of the program to inmates inasmuch as they are the primary recruiters for the program. Verbal acknowledgement must be backed by a willingness to make time and space available for study. On the college/university side, program success rests with the faculty teaching in the correctional facility. A willingness to adapt one's self to a restricted environment and yet maintain the enthusiasm and vigor needed to encourage inmates to pursue their studies requires a dedication which goes beyond the usual role of faculty in the classroom.

Quite often tenured or tenured-track faculty are scheduled to undertake such teaching assignments. It may be an expected part of their regular teaching load or they may take the assignment for extra financial compensation. More often than not, however, the task of teaching in an incarcerated setting falls upon the shoulders of adjunct faculty. It can be argued that a dedicated and well trained adjunct faculty is essential to any extension course program--this may be especially true within a correctional setting.

Many colleges and universities feel a pinch for instructional resources whenever the educational institution departs from traditional programs. Administrators must incorporate the administration of such programs within their current responsibilities and faculty are encouraged to devote extra, additional time to instruct. As often happens, resources become stretched too thin and adjunct personnel are brought in to carry the load. On-campus teaching assignments, considered more prestigious than correctional teaching assignments, are reserved for regular faculty and adjunct faculty are moved into college prison education programs by default. It goes without saying that as a college or university attempts to serve greater numbers of correctional facilities or provide greater diversity in programs, the more that educational institution will come to rely upon adjunct faculty to fill the void.

What follows are two reports from post-secondary educational institutions on how adjunct faculty are used to stregthen their respective college prison education programs. Both institutions serve multiple correctional sites.

Adjunct Faculty as Primary Problem Identifiers

The profile of the typical institution of higher education offering post-secondary educational services in correctional settings is characterized by Wolford and Littlefield (1985) as a public community college with an enrollment between 1,500-5,000 students, offering an associate degree program. The profiled community college usually serves one correctional facility, probably in a rural locale, and maintains an enrollment of less than 100 students per quarter/semester in the college prison education program. A part-time coordinator is typically employed to administer the program and classes are taught by both regular and adjunct faculty, with adjuncts slightly outnumbering regular faculty.

Brewton-Parker College differs from this profile institution. As a small, Baptist supported, private two-year college, it is a David to Goliath in several aspects. The on-campus enrollment at Brewton-Parker averages 450 full-time students in any given quarter. The college's prison education program enrolls approximately 275 inmate students, about 60 percent the size of the on-campus enrollment. Brewton-Parker serves eight correctional facilities and employes a full-time coordinator to administer the program. In addition, the Assistant to the Director and a secretary dedicate approximately 80 percent of their respective time to the administration of the prison education program, all under the supervision of the Evening College Director who also dedicates approximately one-third of her time to the program.

Classes are taught as extension courses in the eight correctional facilities by a faculty of 79 adjunct professors, all of whom hold masters or doctoral degrees in their fields. Since only one of the eight correctional facilities is within commuting distance of the college, few regular faculty teach in the program.

In the Fall Quarter 1985, a high drop-out rate of inmate students from the prison program indicated a potential problem. Total withdrawals from the program during this quarter averaged 33 percent of the enrollment, and the percentage of withdrawal from the larger correctional facilities in the program was even greater, averaging 40 percent.

The administration at Brewton-Parker College believed that adjunct faculty teaching in the prison program were the best diagnosticians for determining possible cause(s) for the high withdrawal rates. The administration was concerned that other problems might exist within the program that the College was not aware of-- a very likely possibility since distances from the College to correctional facilities prevented a great deal of on-site observation. A questionnaire was prepared and sent to the 79 adjunct faculty asking them to describe primary problems experienced by them while teaching in the prison setting, and to note their perceptions as to cause(s) for the high withdrawal rate. The survey also asked for suggested solutions to identified problems and queried the faculty about any special satisfactions they received from participating in the college prison education program.

The survey drew a 63 percent response rate from adjunct faculty. The following major problem areas were identified from survey tabulations and are listed in rank order by percentage of response.

1. Lack of Resource Material (74%). Resources ranging from chalk and erasers to audio-visual and copying machines were identified as deficient. A lack of library resources, including reference books, journals, and periodicals were also cited.

2. Students' Lack of Motivation (68%). A majority of respondents described a lack of motivation in the student population. Symptoms include poor self-discipline and lack of willingness to do assigned work.

3. Attitude of the Correctional Staff (60%). Respondents described an attitude problem on the part of correctional personnel that was far more negative and pervasive than suspected. This included reports of harassmant of both faculty and inmate students by prison guards, and curtailment of time allotted for classes to far less than adequate periods.

4. Students' Lack of Educational Preparation (44%). Respondents described a wide range of educational backgrounds among the inmate student population with many apparent skill deficiencies. The need for remedial English was cited most frequently.

Survey results confirmed expectations of program administrators--that adjunct faculty teaching in the College Prison Education Program could identify primary problems in the program and isolate suspected causes for relatively high rates of student withdrawals. The lack of adequate preparation to do college work and low motivation are primary causes for withdrawal from the program. The lack of adequate learning resources material and equipment, and a pervasive negative attitude on the part of correctional staff are probable factors influencing students' motivation and drive to successfully complete the program.

A possible problem area identified by the survey is the need to improve communication between the college's administration and adjunct faculty. Thirty-four percent of those responding indicated a desire to meet with administrators and other faculty. A further indication of this need is the 37 percent of the adjunct faculty who did not respond to the survey.

Despite the lower than expected response rate to the survey, the quality of responses from those participating was gratifying. Adjunct faculty teaching in the prison program demonstrated commitment and involvement in the program. Responses to survey questions were thorough, analytical, and sensitive to the special problems and rewards of providing post-secondary education in incarcerated settings.

Adjunct Faculty as Problem Solvers

Mercer University is a private, graduate-level teaching and research institution with traditional programs in arts and sciences as well as professional programs in medicine, engineering, law, pharmacy, and education. The university serves five correctional facilities, all located within commuting distance of the campus, and regularly enrolls approximately 70 students in junior and senior level college courses in the prison program during any given quarter. Approximately 25 percent of the faculty teaching in the program are adjunct.

When a teacher sees many students in his/her classes, that teacher often "sees" none of them. Frequently, it is the part-time faculty member who, with fewer students to consider, clearly identifies an educational need _and_ has the enthusiasm to do something about it. If the classroom setting _is_ off-campus, like a prison, full-time faculty, who are probably teaching there on an overload basis, think only peripherally of these particular students. But for the adjunct faculty member, this is his/her one teaching assignment for the term. Further, unlike regular faculty, the adjunct instructor is not aware of potential obstacles which lurk everywhere on a college campus and tend to discourage innovative ideas. Despite years of prison teaching by many regular faculty, it is not surprising that it was one of our adjunct faculty who proposed and spearheaded a special program for our incarcerated students; an educational plan tailored to their specific needs.

This adjunct faculty member, an English Ph.D. turned farmer, had initially obtained a generous grant from a private foundation to produce a literary magazine in the correctional facility in which he was teaching a fiction-writing class. The first volume of _Other Voices_ illustrated for him the special needs of his students. He forwarded a memorandum to other faculty teaching in the prison of which a portion is quoted below.

> "It is obvious to both inmates and all but the most casual visitors to prisons that prison environments aggravate several common human problems. Consider the problem of values formation first. Prison life increases the difficulty of formulating a carefully and independently thought-out framework of values within which persons can conduct their lives. An important reason why this problem is heightened by the prison experience is not hard to find: the authoritarian structure of prisons discourages freedom of personal inquiry. (See William Cook, "Dante in Attica," _Studies in Medieval and Renaissance Teaching_, (Vol. 9, 1982).
>
> A second problem aggravated by prisons is communication. The fear and intimidation which so frequently plague prisoners greatly retard open, thoughtful, and disciplined communication--except perhaps between close friends. In short, prisoners all too often lack the capacity for self-transcendence. In college courses, this problem of communication is often compounded by the deprived social and educational backgrounds of prisoners. In class discussion, they lack skills such as statement of thesis and supporting evidence, and the decorum of intellectual inquiry which allows conversation to lead to insight. In addition to suffering from problems of focus, thesis and evidence that hamper oral discussions, the writing of prisoners often suffers from a paucity of narrative and conceptual structures.
>
> The fear and intimidation that retard communication among inmates also aggravate a third basic human problem: the difficulty of establishing a community in which persons may find support, and

> even therapy, and be guided in the daily task of self-interpretation. This lack of community, together with lack of communications and carefully thought-out values, plus the downright humiliation of prison life, can only aggravate a fourth human problem; the difficulty of acquiring sufficient self-esteem, not based on fantasy or power, to assure the confidence necessary for creative living. With these problems in mind, a non-traditional program development grant from the National Endowment for the Humanities should be obtained"

And it was.

Our project narrative concluded: "We at Mercer perceive the connection between rehabilitation and education in prisons..... But our objectives point beyond any narrowly conceived 'rehabilitation' toward fundamental human 'liberation': we would help the inmate to experience the joys of free and confident thought, communication, community life, and moral action".

Needless to say, any faculty member hopes that education would tender these worthy goals, but that is not the point. The point is that adjunct faculty are often situated in such a way as to stimulate our consideration of these goals in light of the prevailing educational process. They who are themselves marginal as faculty on campus astutely identify the kinds of student marginality which demand our consideration of other than traditional forms of education. Adjunct faculty are a rich source for ideas about programs and teaching methods, especially in situations where regular faculty are least inclined to be moved, that is, with nontraditional students in non-traditional settings.

Conclusion

Adjunct faculty constitute an important part of college prison education programs. They enable an educational institution to fill a void and provide a service that otherwise might be curtailed or perhaps not provided at all. More importantly, however, they serve the institution in ways which regular faculty might perceive as not being their role or responsibility.

As noted previously, adjunct faculty are perhaps more likely to take a greater interest in the course they teach in a college prison education program because of the simple fact that it is the only course they may teach for the college/university in a given term. And since they are on the "front-line," they are in a position to investigate potential problem areas that could plague the instruction and administration of a program. Adjunct faculty are also a very good resource for recommendations which can advert or solve a problem.

It is to the benefit of the college/university fully utilized adjunct faculty as a program resource. Such ties not only provide information to the program's administration, but they also serve to assist in the intergration of adjunct faculty into the institution. As adjunct faculty are called upon to assist in the development of an institution's college prison education program, either through problem identification or as providers of solutions, they can only serve to strengthen the program in the long term.

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OFF-CAMPUS COLLEGE: A CREDIT PROGRAM FOR CORPORATE EMPLOYEES

Marylee Bomboy

Introduction

Off-Campus College is a Cornell University credit program designed specifically for employees of a major financial institution in New York City. Cornell has been working with this organization since 1979 and offers the program on-site to employees after hours one evening each week for 36 weeks over a one-year period. Participants must be nominated by their managers; full program costs are covered by departmental budgets. Employees chosen to participate are those who do not have a bachelor's degree, are below the officer level, and are recognized as having the potential for future growth and development.

The program was developed by Cornell's Institute for Women and Work. The Institute is unique in that it was founded in 1977 to serve the educational needs of women who work in clerical, service and blue collar jobs. A grant from Carnegie Corporation of New York led to the establishment of Career Development Women's Studies, a college credit program for clerical workers. More than 1500 individuals throughout New York State have participated in the program since 1978.

In 1979 the Institute entered into a contract with a New York bank to offer an adaptation of the program to its clerical employees. The program was developed with the close cooperation of the host organization. A period of six months was spent conducting a needs analysis to determine which courses and format would be most beneficial to the target audience. Questionnaires were sent to randomly selected members of the target group and interviews were held with potential students, their managers and with human resource professionals. In this way the curriculum was tailored to specifically address the education and development needs of the employees who would participate.

Since 1980 when the program began, over 400 employees of this corporation have completed the program. Nearly 80% of those who begin the year long nine credit program successfully complete it. The majority of the participants are women and a high percentage (this year nearly 75%) are members of minority groups.

Program Description

Off-Campus College is a year-long nine college credit program designed specifically to assist those employees who do not yet have a college degree acquire the skills, knowledge and confidence that will enable them to grow in their present jobs and develop a plan for continued personal and career growth. Originally the program was open only to clerical women; it has since been expanded to include all those employees below the official level who do not have a college degree, men as well as women. Currently about 20% of students are male.

In Off-Campus College students attend classes one evening a week, after work, for three and one half hours. They take two courses each evening for three twelve week terms, September to June. Classes begin at 5:30 pm and end by 9 pm with a fifteen minute break between classes. Classes are held at the work place to consolidate travel time and increase accessibility to students. Bank training rooms, not used during the evenings, are available at several locations. Each term students earn three Cornell University credits. At the completion of the program they will have earned nine credits as well as a certificate from Cornell.

The curriculum which was developed as a result of the needs analysis includes six courses, each worth 1½ Cornell credits. The courses are nonelective and students entering the program are asked to commit themselves to the entire year. Each term builds on the past and the entire program is more than the sum of six separate courses. In the first term (September-December) students take Written Communication and Interpersonal Behavior. The second term (January-March) consists of Oral Communication and Organizational Behavior. Third term (April-June) courses are Financial Management and Principles of Supervision.

A skills course is paired with a behavioral course each term. This is done to provide a varied classroom experience each evening of class and to give students an opportunity to integrate the more theoretical courses one at a time. In the same way, skills courses taken one at a time provide opportunity to practice skills being learned.

An academic counselor is on site each evening of class and is available to meet with students individually by appointment to assist them with any program-related difficulties. Student absences are followed up weekly. The counselor also offers study skills workshops in the first term, career planning seminars in the second term and a college night in the third term. Because so many students in the program are entering college for the first time, the presence of the counselor each week is crucial to the success of the program.

Instructors are mainly women who, in addition to their academic and teaching qualifications, have work experience in the private sector. They are thus able to assist students in tranferring academic theory to practical application on the job. All use a variety of teaching techniques such as role playing, case studies, structured group experiences and discussion in addition to traditional lecture. The aim is to actively involve students in the learning process and tap into the knowledge they have already accumulated through life and job experience. Because the courses are for credit, all instructors must be approved by the appropriate faculty department at Cornell and have the requisite academic background in the subject matter as well as prior teaching experience.

Recruitment

Students are recruited into the program through the corporation's human resource area staff and through managers. As a regular yearly offering, Off-Campus College is described in the catalog of in-house programs issued annually to managers. The listing includes a brief program description and guidelines for student nomination.

As the fall approaches, a letter is sent by the bank's training department to area human resources staff asking them to consult with managers in their area and to nominate individuals who are likely to benefit from the program. Once nominations are made, Cornell conducts briefing sessions for potential participants to ensure that they are fully aware of the goals of the program and the commitment of time and energy it requires. This briefing allows those not suitable for the program to be counseled out and others to determine whether or not the program is what they expect it to be. Briefing sessions in part explain the high retention rate of the program. Every participant must attend one during the summer before he or she begins the program in the fall.

In nominating an employee a manager agrees to pay the full cost of the program from the department's budget. Students are responsible only for the cost of books and materials. Cornell has been fortunate to have arranged a payment mode in which participants themselves do not have to pay tuition and then get reimbursed (as in most tuition reimbursement plans). Since most participants are women in clerical jobs and who are working because they really need the income, this arrangement is important in removing a major barrier to college re-entry for this group - cost. Cornell then bills the organization on a term by term basis. Chargebacks are made to the tuition reimbursement budgets of the participating departments.

Employees nominated for the program can, of course, decline to participate since the program takes place in the evening and requires them to contribute their own time, not only on class evenings but for up to six hours of homework each week. In practice, however, most nominees are people who have asked to be nominated and are anxious to participate.

Program Outcomes

Program staff have done extensive follow-up of participants, both through interviews with program completers, questionnaires administered at the end of the year, and through interviews with a randomly selected group of students' managers. A longitudinal study was completed at the end of the first three years; a similar study is currently underway.

Managers have been highly supportive of Off-Campus College. They have been involved through briefing sessions and invitations to certificate award ceremonies held annually. Because of the longevity of the program, we are now having participants nominated by managers who themselves are program graduates.

Among reasons cited by managers as responsible for their continuing support are the following program-related outcomes:

- increased productivity, as evidenced by fewer mistakes, better questions and increased willingness to take on responsibility;
- broadened viewpoints and greater understanding of organizational goals;
- greater commitment to the job and to the organization;
- improved employee-manager communication;
- strengthened job performance.

The positive effect on employee morale is seen as going beyond those employees who participate in Off-Campus College. Even those who are not interested in participating in the program realize that opportunity is available for those who seek it and as a result the employer is seen as caring about the development of its employees. In addition, the program provides an opportunity for people from diverse areas to come into contact with each other and provides a channel for individuals to rise from the ranks and be noticed when opportunities for advancement appear.

For students, a major outcome of their participation in the program is increased self-confidence. Increased confidence is cited by students, almost universally, when asked what they have gained from the program. A sample of student responses clearly indicates that the program is more than the sum of six courses.

- "I became aware of myself. I have become more assertive and learned how to handle myself in difficult situations. I have gained more self-confidence."
- "My self-confidence has strengthened. Being part of a group has been very satisfying. My performance at my job has definitely improved."
- "Since completing the program I see that I relate better to people in general. My self-confidence has improved greatly and I feel much better about myself."

In addition, students mentioned other gains related to their work situation. The most frequently mentioned are:

- a better understanding of the bank and how it functions;
- an appreciation of how their job fits into the overall organization;
- more interest and satisfaction in their work;
- better ability to manage time and workload;

o increased willingness to take risks and seek more responsibility;

o confidence in their ability to succeed in college.

Nearly half of all students studied at the end of the first three years of the program had experienced a job change within the organization during their year in Off-Campus College or in the six months which immediately followed program completion. Such movement indicates to all that development and change is possible for clerical workers and does much to create an atmosphere of optimism and good will in an organization. About one third of program completers transferred immediately to other colleges to continue work toward a college degree. Most often, these people choose to continue in a business program. Many others indicated their intention to continue their education in the future; often a job change delayed plans for a term or two. An increasing number of completers are now rising to the official level and some are receiving their Associate's and nearing completion of their B.A. degrees.

For other students the program serves a different purpose. A number of participants have reported that at the conclusion of the year they realized the difficulties of college work as well as the heavier burdens of management and decided that they were happy to remain in their current jobs. Some determined that the amount of time and energy necessary to move up was not available to them at this point in their lives and were happy to use their new knowledge and skills to perform better in their present jobs. Whatever the particular circumstances, some program completers developed a greater satisfaction with their current status, perhaps as a result of feeling that they were, in fact, choosing to remain in it for the present.

Summary

The Cornell model program just described can easily be replicated by other colleges and universities and offered in a variety of corporate and public sector settings. Our experience shows that some employers are willing and even enthusiastic to support clerical and administrative employees who are motivated to return to college and eager to qualify for advancement. It is my hope that in describing the program here other colleges in other parts of the country might become interested in using it to engage in a partnership with those organizations in their service areas which employ large numbers of clerical and first-line supervisory employees. As Off-Campus College shows, the result is of great benefit not only to the individuals who participate and to the sponsoring college, but to the host organization as well.

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EDUCATIONAL PROGRAMS FOR DISPLACED FACTORY WORKERS IN MASSACHUSETTS

Kevin C. Brady

Introduction

In recent years, Massachusetts has enjoyed a robust economy. Unemployment has been low, and thousands of new jobs have been created. At the same time however, the base of the state's economy has shifted drastically, and thousands of jobs and occupational categories have disappeared. Older, manufacturing industries have been leaving, taking with them the high-paying jobs that they once provided. The new jobs have been either high-tech, high-skill jobs that pay well, or they have been service jobs that require little or no skill, and pay accordingly. As a result, the state's industrial middle-class has been disappearing.

The story of the Lesnow Manufacturing Co. is typical of this pattern. The company manufactured fine quality women's outerwear. The employees were unionized, well-paid, and stable. However, foreign competition and a jurisdictional dispute between unions gradually forced the company out of business. The company's 230 employees were thus faced with the necessity of finding new work, and new skills.

The Mature Industries Program

Faced with a series of factory closings and industrial shifts, Massachusetts has developed the Mature Industires Program to help displaced workers get the skills and training to find work in the emerging industries.

The program involves a wide range of services, provided by a consortium of state and private agencies. The Dept. of Labor and the Dept. of Economic Affairs jointly oversee the effort. Field services are provided by the Division of Employment Security (DES) and local Job Training Partnership Act consortia (JTPA). The DES sets up Emergency Assistance Centers which are temporary, and targeted at the workers from a particular plant. The JTPA's run on-going training programs to which the workers are referred. The program's goal is to see the workers re-employed, preferably in a different industry, at at least 85% of their previous wage.

At most workers' assistance centers, the displaced workers are counseled about their aptitudes and preferences, and given the chance to pursue education and training while collecting unemployment benefits. For those who never finished high school, referral is usually made to on-going GED and ABE programs. Sometimes, the center will set up and run its own GED classes, or the students will receive GED study as part of a vocational program. In many cases though, participation in GED study has been very low. At Lesnows, while approximately half the workers had not finished high school, only ten people initially expressed interest in getting a GED. Since a high school education is necessary for entrance into most technical occupations, we need to look closely at why so many workers pass up this opportunity to get a GED.

Transitional Education--The Lesnow Program

GED/ABE programs in Massachusetts are usually targeted at specific populations, and, in the public mind, are associated with the "welfare class." Community colleges offer such work, but follow the normal course of a semester. But if a worker has only 30 weeks of unemployment benefits, a 14 week GED class just takes too long. At the same time, displaced workers are often unwilling to go outside their immediate community. They often feel out of place on a campus. They may also be unwilling to admit to others that they never finished high school.

At the same time though, displaced workers show some characteristics that indicate they would do well in an educational setting. They usually have strong work histories, and a strong work ethic. They are rooted in the community, and are usually active in its affairs. The problem then is to create a program for such people that can ease them into the educational process. This is a matter of both course content and location.

Most displaced workers who left school early, usually did so for financial reasons. Those who did graduate are often rusty in academic skills. Most of them are literate, but unused to dealing with the kind of reading that college-level work requires. In addition, these people are likely to be skeptical about the value of education, since they have earned a good living without it.

Thus, as a result of our experiences in dealing with displaced workers, and based on a survey of their desires for training and education, we developed what we have called "Transitional Education." The objective is to provide whatever kinds of educational services the workers need in order to be successful in academic or training programs.

Transitional Education for the Lesnow workers came to include two GED classes--day and evening for seven weeks; tutorial services, offered by appointment; and an on-going ESL/ABE course for a group of students who were mostly from Eastern Europe.

The courses have been wide-ranging, flexible, and practical. In order to find out what the students knew and didn't know, we used a wide variety of methods--test, exercises, essays, and discussions. Once we had determined what the students were lacking in academic skills, the course was arranged to remedy those deficiencies.

In the GED class, it became apparent that the class needed a lot of work on reading skills. In addition, most of the students suffered from math anxiety and test anxiety. Based on my experience with adult students, I believe that most of them learn best from doing, and watching others do. This belief is the basis of my teaching method.

For instance, many in the class could perform basic math operations easily, but were baffled by even the simplest word problems. So, for about two weeks, I would write out word problems on the board, analyse each one to determine what its objective was, what operations were required, and what order to perform them in. The students would watch me do this, and then imitate my method. With practice, they all became quite adept at doing word problems, and were extremely successful in doing them on the GED test. Much of the time, I would group the students together, and have a successful student show others in the group how to do the problems. Adults feel comfortable learning from their peers, and this has proven to be a successful method for teaching them. I used much the same method to deal with reading skills. Test anxiety gradually disappeared as the students took repeated practice tests. We also spent class time discussing their fears, which incidentally led to more discussion about education in general, and the reason for tests.

Tutoring was offered at the students' convenience, for any subject they needed help with. Most students needed help in writing essays, developing study skills, and understanding technical vocabularies. In several instances, they just needed a little support.

ESL/ABE was the longest component of the program, and the most difficult. The class met for twenty hours a week, for about four months. (The 20 hours was to satisfy federal requirements for defining full-time study.) The students had all lived in the US for many years, and were looking for practical everyday English, survival skills, and basic information about American culture and life. Because the students had widely varying abilities, teaching some concepts was extremely challenging. Some students needed help filling out forms, while others were worried about the grammar of complex sentences. Most of all, the students wanted practical skills in English--correct word usage and spelling. They were often mystified by our colloquial expressions and multiple usages of the same word. The minimum of formal grammar that they needed to know would become apparent through exercises and discussion.

Problems

In developing this program, we naturally ran into a variety of problems. Appropriate materials were difficult to find, especially since we were working under time constraints. The available GED texts were written with a vocabulary more appropriate to a college sophmore than to a high school dropout. The explanations and directions were often unclear and confusing. In the end, the text became a source of exercises only.

For the ABE/ESL class, every text I examined assumed the students were Hispanic, and concentrated heavily on formal, technical grammar. However, with the assistance of an excellent book from England--Teaching the Spoken Language-I was able to devise a practical curriculum. This work starts with an analysis of the purposes of spoken language, and how it is used by native speakers, and then creates a hierarchy of speaking skills. The book also offers a series of useful exercises, and ways to measure profficiency at every level.

The biggest problem with the tutoring program was getting the students to take advantage of it. Several students came for help with specific subjects, but it is certain that many more could have used the help. We suspect that many were overwhelmed by the demands of school and home, and couldn't find the time to get help. This seems to be a common problem with tutorial services, and perhaps new approaches for recruiting students are called for.

Finally, in all programs that work with people who are receiving unemployment benefits, time is a big factor. Benefits in Massachusetts are generally available for thirty weeks, with extensions possible under certain circumstances. Many displaced workers though are the primary wage-earners for their families, and cannot afford to be without a decent income once their benefits run-out. One-year certificate programs that offer co-op work or job placement seem to be the best solution for the future. Many of my students were seeking programs where they could work as they learned, and they had difficulty finding such opportunities.

Conclusions

Since industrial dislocation is going to continue to be part of the American economy for the forseeable future, American educational institutions are likely to find themselves serving the victims of this process more and more. At the same time, our emerging new industries need an educational level that much of the American workforce has not achieved. The result is likely to be shortages of key personnel unless we develop ways to retrain and educate dislocated workers for the new industries.

In order to do this successfully, I feel we need to devise new approaches to teaching, along with new educational programs. Transitional education calls for teachers who are flexible, practical, and prescriptive in their teaching methods. The administrators of these programs will need the same basic qualities. They will be concerned with integrating a variety of institutions and services in order to meet a common goal.

Finally, Transitional Education offers us a chance to turn economic disaster into economic opportunity. At the same time, we have the opportunity to recover from some of the failures of our elementary and secondary school systems. The people we serve in these programs have for many years formed the backbone of our economy. Their taxes have supported our institutions, and their children have been the students we have been educating. To simply ignore their needs at this point, or think we can just shuffle them off into other programs is unconscionable. They have given us a great deal over the years. Its time to repay the debt.

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EDUCATION AS A STATEGIC RESOURCE FOR SMALL GROWTH COMPANIES

Alistair M. Brett

Introduction

In this presentation we want to consider the special role that small high growth companies play in our economy and discuss some of their educational needs. In many ways these companies are a phenomenon of the last decade or so and may be regarded as "non-traditional businesses" requiring us to be non-traditional and innovative in the delivery of educational services.

Small Business and the Economy

In his well known studies of over five million businesses and their role in the job generation process, David Birch at MIT estimated that establishment and growth of independent firms create more than half of all new jobs. Companies with twenty or fewer employees provide two-thirds of all new jobs in the private sector (Birch, 1979). Surveys also show that small businesses (with less than 500 employees) account for 48 percent of the nation's business output, 43 percent of the gross national product, and about half of all industrial inventions and innovations, and employ more than 55 percent of the labor force in private industry, thus directly or indirectly securing the livelihood of 100 million Americans (Small Business Administration, 1983).

The failure rate of new businesses has been much publicized, and educational programs should address some of the reasons. The commonly stated figure that some 80 percent of all new businesses fail is wrong. Studies show that some 20 percent disappear in the first year, another 15 percent in the second year, about 10 percent in the third year and so on. However, many of these are just shifts in business, not failures. Less than 3 percent are bankruptcies (Birch 1985).

Much has also been written about the shift from manufacturing to services businesses. Educational providers should view these changes via the alternative description of a changing "product half-life," and the shift from muscle to brain power.

> Product half-life is the time it takes for half the value of a product or service to become obsolete. . . . The change we are experiencing is a shift from products and services with long product half-lives to those with quite short half-lives. We refer to this latter group as "thoughtware" because it is so heavily based on innovation and thinking for its success and growth (Birch 1983).

We need to separate two types of small businesses; the entrepreneurial or growth business, and the income-substitution business. The latter type, which accounts for around 85 percent of all small businesses in the country, are those which make enough money to employ the owner instead of that person working for someone else. In this presentation we want to discuss the first type only, some 90 percent of which are technology-based companies, and all references to "small businesses" will imply this sector.

Why should we be concerned with small technology-based companies as a subset of the small business sector, especially when their direct job generation capabilities may not be high? One reason is that such firms tend to be efficient in the pace of product development, have significantly positive indirect effects on overall economic development, and are attractive candidates for high risk/high return investment.

Small Business and Education

While precise figures are hard to calculate, the total expenditures on education by companies of all sizes is around $30 billion annually. If indirect costs and the cost of employee time is taken into account, this figure doubles. Educational expenditures by small businesses are even harder to estimate. Most small businesses cannot, as do larger companies, support in-house training staff. Many large companies have recognized that they may "be better able to accommodate rapidly changing knowledge requirements by conducting their own educational programs rather than attempting to work through a college or university" (Honan 1982). Small firms do not have this luxury. Their expenditures on educational services are disproportionately small in relation to the tremendous impact these businesses have, directly and indirectly, on our economy. Some figures are available (Lynton 1984), but most estimates were carried out in the late 1970's and updated research is needed. The continuing shift to shorter product half-lives in the thoughtware sector makes access to continuing education of more importance. Over 250 colleges and universities are now offering courses in entrepreneurship, but relatively few educational programs have been directed to the continuing needs of innovative small business enterprises.

Strategic Needs: Corporate education, in businesses of all sizes, is more of a tactical device rather than a strategic one--useful in meeting immediate needs (Lynton 1983) or in reactive short-term problem solving (General Accounting Office 1983). Table I shows a comparison of tactical and strategic thinking.

A paradox has emerged from research into the management of high technology companies which had all experienced substantial growth and change (Maidique and Hayes 1984). The fundamental question asked was: What are the strategies, policies, practices and decisions that result in successful management of high technology enterprises? From the responses of these companies, it was found that some favored informality and even disorder, but others believed success rested on consistency, continuity, integration and order. One conclusion reached from this and other studies was that individual successful firms may experience long periods of continuity, interspersed with periods of turbulence. In preparing educational services for such companies it is critical to be empathetic to this business environment.

The belief has been expressed (Vesper 1982) that business entrepreneurs most likely to fail are those with experience but lacking in education, and the second most likely failure group would be those with education but lacking experience. Early stage investors, such as seed and venture capital companies, are raising the importance of education and access to education in their evaluations.

Sources of Information: Information is a vital resource to small companies. Many surveys have been conducted throughout the country among small and large companies, and the results do not differ much. A recent one in Iowa is typical. When asked to rank current sources of technical information, manufacturers' representatives ranked first, with colleges and universities in eighth place. When companies were asked where they would prefer to obtain information, colleges and universities moved higher, but only to fourth place (Swanson 1986).

New Business Incubators

Over the last few years, new business "incubators" providing space and shared support services to new businesses have proliferated. These entities range from store-front operations offering rudimentary offices with few, if any, support services to large newly constructed buildings with modern offices and a host of ancillary services. Some of the more successful incubators are owned or operated by universities (Rensselaer Polytechnic Institute), states (Georgia), consortia (Philadelphia), public-private partnerships (Spartanburg, SC), or private companies (Minneapolis). After the early growth stage, a successful company will become solid enough to "incubate" into the non-protected marketplace.

Much unstructured non-traditional education currently takes place in new business incubators, particularly the larger ones. Tenants learn from the successes and failures of each other and the proximity of many company founders with similar problems, stresses and ambitions creates its own special educational environment. Educational programs delivered through incubator facilities should be supportive of, and build upon, these interactions.

Incubators can also change a new company's business strategy allowing them to accelerate their growth plans, lower operating costs and increase business contacts (Allen and Rahman 1985). Appropriate educational assistance has been developed by Control Data and other suppliers to provide the business with a better foundation for growth. Business planning guidance and is available for self-paced help on the CDC Micro-PLATO System.

Virginia Tech is preparing a package of educational programs in cooperation with a selected group of the nearly 700 small companies who are currently tenants in Control Data affiliated incubators (Business and Technology Centers). The educational underpinnings for both small manufacturing and thoughtware businesses will be included in a menu format allowing the client to follow selected information in conveniently sized doses. This will be combined, in some cases, with access to specific technologies and research results from Virginia Tech and elsewhere--thus increasing access to potential new product development combined with "value-adding" management, marketing, finance and human resource development help.

When colleges and universities become involved in educational programs for business, conflicts of interest, or perhaps more accurately "diversions of interest", can often result. Such actual, or potential, difficulties constitute part of the challenge of formulating productive working partnerships with growth businesses. These partnerships can be easier to establish and manage with the help of an intermediary organization, between the college or university and the business client. The Business Assistance Office is the generic name for any organization which acts as this intermediary or "buffer" and coordinates assistance to incubator business tenants. In some communities this is a separate entity supported by a mix of public and private sector funds, and direct revenues. The office may be a subdivision of an existing local economic development or similar agency.

Case Studies

Rock Hill, South Carolina, is a fine example of a community which marshalled enthusiasm from across the public and private sectors to aid in new business development and maintenance. Winthrop College is providing management, marketing and related assistance coordinated by a Management Assistance Office staffed by city economic development personnel. College faculty, area professionals and business persons are working together in providing value added assistance to investments made by a locally formed inveatment fund.

North Augusta, South Carolina, and Augusta, Georgia, are working cooperatively to provide educational services, particularly technical assistance and consulting, through the Medical College of Georgia and the University of South Carolina. As in Rock Hill, a venture capital fund has been established to provide investment capital. Only businesses receiving value added management, marketing, product evaluation or related services from the educational sector will be actively considered for investment.

In Spartanburg, South Carolina, an effort driven entirely by the private sector is coordinating assistance from the university and technical college to incubator tenants. A local venture capital fund is being established, but all potential investments are evaluated by teams of experts from the educational and business sectors.

In Chattanooga, Tennessee, a public-private sector group interested in developing a new business incubator initiated a survey of area educational and financial resources. This provided an opportunity for the university and technical community college to work together in identifying and directing educational resources from many disciplines toward very specific common goals. This had not previously been done.

State and Local Assistance

Practically all states are now involved in providing increased access to debt or equity capital for start-up businesses or expansion of existing businesses. Fewer are encouraging the academic sector to supply targeted educational assistance to such companies. The increased availability of capital for small, potential high growth firms followed research which clearly showed the critical need. Similarly, we need to conduct more extensive research into the education and training needs of these businesses.

Experience in working with new business incubators shows that multiple benefits can result from linking the Business Assistance Office to the higher education community. For many start-up businesses the "worst" help to provide is capital. The "best" can be capital combined with technical, management, marketing or other assistance. Educational assistance adds value to the capital investment. Some of this general help can be given through voluntary boards. More concentrated work can be provided under contract to individual businesses and funded in many cases by a part of the seed capital investment.

Those states who are directly or indirectly providing or subsidizing financial capital investment in new businesses should also set aside a smaller amount for subsidizing educational assistance for the same such new companies. The new companies need to be shown how they can benefit from the resources of the non-profit sector to assist them in their profit-making enterprises.

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TABLE I EDUCATION: A TACTICAL OR STRATEGIC RESOURCE?

Tactical	Strategic
Education is not a prime resource.	Education is a prime strategic resource.
Start the new venture, call on the higher-education sector to solve problems when they occur.	Develop long-term (alternate) planning for the business with integrated educational help.
Focus on the start-up stage and the initial venture.	Look at entrepreneurship as a career, composed of many ventures.
Entrepreneurial success is a function of the right human characteristics and traits. Experience, personality, age	Entrepreneurial success is a function of human, venture and environmental conditions. As the half-life of products

are critical factors for success.	shortens, educational background becomes more important.
Rely on the experience of others.	Rely more on formal training in starting, maintaining and developing the company.

Developed from: R. Ronstadt, *American Journal Small Business* 10(1)1985 and other sources

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SERVING CORPORATE EDUCATIONAL NEEDS: INTERDISCIPLINARY AND NON-TRADITIONAL ACADEMIC CURRICULAR APPROACHES

Janice Shaw Crouse,
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Introduction: Taylor University's Continuing Education program maintains a continuing relationship with the local Chevrolet-Pontiac-Canada plant. The University provides courses for traditional academic credit and/or continuing education credit in three major areas: Interpersonal Communication, Stress Management and Computer Programming. In addition, University staff members are meeting a variety of plant educational needs through consultant relationships.

This paper will provide a theoretical, philosophical framework for adapting course content to adult learners within the constraints of solid academic credibility. We will explore the unique requirements of the CPC worker-students and the resultant professor-professional/ student relationships. We will explore the organizational and marketing requirements for negotiating relationships with plant management and other plant personnel in attracting interest in the courses. In addition, we will describe the structure and content of the courses.

We believe that the relationship between Taylor University and Marion CPC can serve as a model non-traditional and interdisciplinary program designed to meet corporate educational needs. We hope our description and analysis of the program will challenge other institutions to develop similar corporate relationships.

At the request of Chevrolet-Pontiac-Canada, a division of General Motors, Taylor University during the fall of 1982 designed a computer literacy class for the management team. Since that time, the program for CPC has undergone many expansion phases. For the first two and a half years, the program centered around computer courses. Since that time, the program has expanded to touch several other areas.

Computer Courses Currently, the computer-related course consists of seven offerings: Computer Literacy I & II, BASIC Programming I & II, and workshops on electronic spread sheets, data base management and word processing. The computer literacy courses and the BASIC programming courses have been offered frequently during the past four years. The workshops are an experimental addition begun during the spring of 1986.

Computer Literacy I & II are each two academic credit hour courses. Students spend two hours in class and two@ hours in lab each week for eight weeks. Computer Literacy I utilizes ten 30-minute video tapes from the BBC called "The Computer Programme". These tapes look at such topics as: computer programming, input/output techniques, data communications, simulation, and the future. During a typical two-hour class period, there is an hour lecture, one 30-minute tape occasionally two tapes) and 30 minutes of evaluation. The lectures correspond to the course text Computers Today by Donald Sanders (McGraw-Hill, 1985).

During Computer Literacy I, the first five chapters, chapter 18 and chapter 19 are covered. For non-traditional students, evaluation is anxiety-ridden. We have found that weekly quizzes reduce the fear that evaluation brings. The current method is to give twenty-question quizzes each week with a longer (60-80 question) final exam. The students react well to 'quizzes' rather than 'exams'. The answers are given and discussed immediately after the quiz to give as much reinforcement as possible.

Computer Literacy II is handled in much the same way except that there is only one video tape (The Mind Machines--on AI). The same text is used with an additional 6 chapters being covered. The lab sessions for both courses involve topics such as: use of a microcomputer, word processing, electronic spreadsheets, data base management, operating systems, and programming. The idea behind the selection of topics is to give the student a taste of topics which are expanded upon in later courses. This should enable the student to wisely select which additional courses meet his/her needs. The lab sessions are, without doubt, the most popular part of the course. The students ALWAYS rate these very high in course evaluations.

The experimental workshops are taught as 1 CEU (Continuing Education Unit) courses. The workshops each meet for four 2-hour sessions. (These will be lengthened in view of the new CE requirement of 10 hours per unit.) The topics are covered in as much depth as the eight hours permits. For example, in the word processing workshop, the final assignment is to create a personal resume. For many non-traditional students, a personal resume is a new project and a major word processing assignment. Each time one of the computer courses is taught, it varies from the previous time. Modifications continue to be made in keeping with the student's feedback and our personal assessments. Flexibility is very important in keeping a continuing education course relevant. Four years ago, CPC pushed learning programming; now we downplay programming. There still are some people who wish to take the programming courses, but we are much more likely to get serious students. The students in the classes are given frequent opportunities to express opinions about changes that are needed in the courses. Their suggestions have altered the classes considerably.

Stress Management Workshops Taylor University employs a full-time psychologist to direct the counseling program and to handle the more serious, long-term counseling needs of students. Dr. David Aycock has a particular interest and expertise in stress management. He is in demand as a workshop presenter to numerous groups in the local area. As a result of a workshop he presented to CPC management, there was a request that the workshop be presented to hourly and salaried employees on a regular basis for either academic or continuing education credit.

The workshop has been highly rated by the participants and continues to attract worker/students. Dr. Aycock emphasizes the physical and emotional results of unrelenting excess stress. He provides accurate information regarding the bodily response to stress and catalogues the various results that are inevitable according to statistically validated studies. He has the students take a variety of tests to show Iype-A behavior tendencies, the amount of stress encountered during the previous year, and the effectiveness of individual coping mechanisms. The remainder of the workshop focuses on developing the coping mechanisms necessary for enabling a person to handle the routine and emergency stresses of life.

Interpersonal Communication Courses The Interpersonal Communication Course is taught by three professors from three different departments of the university. Dr. Dale Jackson, of the Communication Arts Department, structured the course and planned the syllabus. Dr. David Aycock, university psychologist, and Mr. Vance Maloney, Assistant Professor of Psychology and Director of Testing, assist in teaching the course.

The course has been popular with the CPC students and has recently been moved to a plant location in order to provide convenience for class sessions and to accommodate more students. The course content has been enhanced by visits of the professors to the plant working areas in order to understand the working conditions and communication problems there. The observations made on these visits enrich the applications of theory and enhance the practicality of the course.

Students learn basic listening skills and develop the ability to see things from the other person's point of view. Communication models are studied as a philosophical framework for understanding communication as a dynamic and everchanging process. Particular emphasis is given to empathic listening and the dynamics of organizational communication. The cliche of meanings being in people rather than words is illustrated from the actual circumstances and situations from the students' experiences.

Organizational and Marketing Requirements Selling continuing education courses is much like selling any produce in a competitive society. There must be a marketing strategy, which includes: (1) a knowledge of the community and its needs, (2) a good product, and (3) an efficient, effective delivery system that is able to take the product to the consumer, when and where they want it and in a manner that is cost effective to all parties involved. We would like to tell you that we followed the above guidelines and, as a result, everything worked out as planned and everyone is living happily ever after. However, such is not the case. As the historical prospective indicates, we became involved in the delivery of services first and had to learn along the way what the corporation really needed and the best way to deliver those courses to them.

Advertising: Initially, the CPC employees learned of the computer courses through their union newsletters, supervisor's memos, and word of mouth. However, as we began to learn more about the employee and their needs as well as what the corporation had in mind in permitting them to take our courses, we began to plan specific courses and advertised them accordingly. But our recent experience seems to be telling us that the most effective form of advertising with the blue-collar, hourly worker is through the union newsletter and bulletin boards strategically placed throughout the plant. We have also begun to have a university representative at the plant at least one day a month on a regular basis to answer questions and assist with educational advising.

For the salaried and top management employees, we have found that working through the plant manager and the personnel office is most effective. This method allows us to present a proposal which addresses a specific area of knowledge that we feel would be beneficial to the employees as well as the plant as a whole. Two examples of this type of advertising are the Stress Management and the Interpersonal Relationship courses. Our proposal included, in addition to a description of the specific area of learning, a statement of expected results and benefits to the employee as well as to the plant and a brief description of the cost. We have used this method to advertise other courses to the CPC plant as well as to the corporate community as a whole.

Registration: For the computer courses, registration is handled by the staff in the technical training office of the CPC Plant. However, this is not as effective as we would like, and we are looking at some changes. Presently, employees who wish to enroll in a computer course will obtain a form from the union representative, and once their application for the class has been approved, they may sign up for the course. This permits the employees to attend the class and their names to be included on the list provided to our campus coordinator. We may have 25 names on the list but only 10 students show up for class. This can cause a budget problem since each course is designed and budgeted to stand on its own. The changes we plan include completion of a union registration form at the plant which will provide the employee with the date, time, and location of the class. We have been told that the union has not always provided employees with this type of information.

The completed union registration forms are then processed through the Continuing Education Office on our campus which certifies them to the university Records Office for continuing education units, college credits, or auditing. Registration for all of the other classes, such as Stress Management and Interpersonal Communications, are handled by the company personnel office and a specific enrollment is required.

Payment: Payment for all CPC courses is made by either the UAW union or the General Motors Corporation. In a case of computer courses, these are handled by the union vouchers approved in advance by the union office in Detroit. All salaried and top management employees are given an educational allowance by the General Motors Company. The Taylor Business Office bills the company office in Detroit for all those employees who enroll in our classes. The Continuing Education Office must certify to our Business Office and to the company controller that the student is enrolled in an approved course. This certification accompanies the billing which our business office sends the General Motors Company. All payments are mailed directly to our Business Office.

Who Should Attend: As mentioned in the opening remarks of this section, we try to plan courses that are geared to the needs of the employee and the company. The company has a need for certain employees to become computer literate in order to maintain or improve production in a computer society. They also need employees that are able to work under different types and varying degrees of stress, and it was not hard to sell them on the need for good, positive, and complete communication, from the bottom up as well as from the top down.

On the other hand, the individual employees have both personal and occupational needs. Employees need to keep up with demands and expectations of the job but also need to feel in control of the future by having access to learning that enhances personal and environmental understanding. Environment includes the employer, supervisee, family, and fellow workers.

In short, any employee can benefit from courses that are planned to: (1) meet their needs, (2) be delivered to them in a convenient, manageable manner, and (3) provide them with incentives for a more productive future.

Adult Learners Adult learners are very different from traditional students. Adults who enroll in these courses WANT to learn!! This makes teaching the courses a real joy. As additional faculty members have been enlisted to help with these courses, the response has always been positive. Faculty members find it very gratifying to work with students who ask good questions, who do not want the book rehashed (they prefer additional material!), and who tend to stay around after class requesting additional information. Adult learners are easily frightened by hand-in assignments and exams (as mentioned earlier). The adult learner needs a very relaxed classroom atmosphere where ALL questions are respected.

Flexibility Soon after we began working with the CPC Plant, we became very much aware of the need to be flexible in our course offerings, the scheduling, and even the location of the classes. Because the plant works two shifts, 7:00 a.m. to 3:00 p.m. and 3:00 p.m. to 11:00 p.m., it was necessary to schedule classes so that both shifts could attend. The plant management cooperated by letting us do this and permitting some employees to leave work early and others to come in late. We found this University-Company cooperation to be vital to the success of the program.

Another more difficult area to deal with was that of course selection. At times we felt we had a course that would be well attended but had to change the entire course, sometimes only days ahead of the scheduled beginning date. We found this flexibility necessary because of the varied interests of the employees. We tried to take our "cue" as to "what would go" from the union representative assigned to the training office. However, at times, he either misread the employees' wishes or was projecting his own desires. Nevertheless, we learned to be prepared to make complete changes at the last minute.

In summary, we found flexibility to be the key to our maintaining good relationships with the plant management as well as with the employees who became our students. Feedback on the course evaluations indicated that the employee-students rated this aspect very high as an indication of our interest in and concern for them.

Credit and Cost As noted above, these courses are offered for credit and for CEU's. The cost is lower for CEU's. Since the local union pays up to $1,500 per employee per year, the cost doesn't seem to be a large factor. Many of our students enjoy receiving academic credit because of lingering long-term goals. Of the more than 500 people who have taken these courses, few are likely to finish a college degree; yet these students like having college credit on record at a university. As long as academic integrity is upheld in the courses, we can assist the students in meeting this goal.

Conclusion Taylor University's liaison with CPC has been a mutually beneficial relationship. We look forward to future opportunities to tailor courses to meet their needs. We believe that our experience could be duplicated in many other settings. Current literature recommends that academia and business join hands. Our experience has proved the validity of the cooperative venture.

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TEACHING COLLEGE COURSES IN ON-SITE CORPORATE SETTINGS TO PROFESSIONAL LEVEL STAFF

Greg H. Gardner

In the past decade, American colleges and universities have intensified the effort to take academic courses off campus and teach them in on-site corporate settings to professional level staff. This unique academic environment has received accolades from both the academic world and the corporate world. In the past year, I have had the opportunity to direct and teach in just such a program--the organizational communication major in the School of Continuing Education of Rollins College, Winter Park, Florida, being taught on-site at Walt Disney World in Orlando, Florida. The experience has been a positive one, and today I would like to speak to you about the background of on-site instruction, the advantages and potential disadvantages of the program, and necessary criteria for the effective teaching of courses in such corporate settings.

Teaching college courses in on-site corporate settings to professional level staff was started in the decade of the 1950s but has developed as a nationwide academic trend only within the past decade. Today, it is a rather established academic vehicle for dozens of major corporations as they seek increased learning for their managers. Corporations generally have four choices when seeking such learning opportunities for their managerial employees. First, they can encourage employees to seek academic course offerings or degree programs at local educational institutions. Second, they can teach courses staffed by higher level management. Third, they can hire consultants to teach on-site in a variety of specialized areas. Fourth, they can contract with colleges to teach college courses on-site, the focus of this paper. This last option has become so popular of late that it is almost inevitable that this trend will continue and grow in the coming years. The program which I direct was started in 1976 when Walt Disney World, dissatisfied with the type of technical education its managers were receiving from a local state university, contracted with Rollins College--a small, private liberal arts institution--to teach a number of courses in organizational communication and business studies on-site, we now teach four courses each term at Disney University, the educational arm of The Walt Disney Company, Inc. including such courses as interpersonal communication, finance, personnel administration, public relations, and supervision.

Representatives from both the corporate and the academic sides of on-site teaching programs cite advantages inherent in the method. Corporate executives most often indicate two particular benefits. First, management often feels that college courses taught on-site fill a need not satisfied by other programs. Walt Disney World executives, for example, indicate that the corporation teaches many training programs in-house and also hires outside consultants to teach specialized training courses on-site. However, they still firmly believe that the education provided by a liberal arts college on-site is a unique learning experience which these other methods cannot duplicate. Such courses often will provide a more general type of content and will be taught by full professors holding doctorates in their chosen disciplines, benefits the other methods do not possess. Second, such college on-site courses are generally more convenient for the employee-student. Instead of being taught during the day when work time is interrupted or on week-ends when pleasure time is interrupted, college on-site courses are usually taught in the late afternoon or early evening, immediately after the work day is finished. The on-site feature also saves the employee transportation time and cost, both of which can become considerable.

Colleges and universities also report important advantages from providing on-site academic courses. First, such courses provide increased enrollment monies for the college. Enrollment is increased by these programs in two ways. Courses typically enroll twenty to twenty-five students in each course so total college enrollment is immediately increased. These students then often will enroll as full time students if they are impressed by the college's operation of the on-site course. Second, teaching courses on-site is considered an exciting, challenging change of pace by most professors. The students, for example, are unique. They are older than average, more mature than the typical 18 year old, and generally dedicated to improving themselves educationally since such courses are usually looked favorably upon by management. The teaching environment, too, is often unique. Instead of the sterile, academic classroom in which most professors traditionally teach, corporate classrooms are most often spacious and carpeted with state of the art technology. Third, on-site courses provide the college with important links to large corporations which can prove invaluable in terms of needed support. These companies will often give money to the college, provide excellent internships for on-campus students, and generate employment for the college's graduates. Advantages exist, then, for both the corporation and the college.

At the same time, there are certain potential disadvantages to the establishment of on-site teaching for the involved colleges and universities. While these are minimal compared to the aforementioned advantages, the participating college needs to be aware of them so as to preclude them from damaging the program. One such possible problem is that the full-time faculty may be overworked in an attempt to provide competent instruction. To prevent such overwork, the college needs to place a cap on the maximum number of such courses a professor can teach at one time in the program, for example, in our School of Continuing Education, no faculty member may teach more than one course per term. This helps prevent faculty burnout and also guarantees that students will be taught by a variety of competent faculty. Adjunct faculty can also be overused. There is a common tendency to hire well qualified individuals from the community to teach in on-site programs since they often volunteer for teaching assignments and can often teach specific courses not taught by more eclectic full-time faculty. The performance of these adjunct faculty is often more difficult to monitor for directors of the program. Also, adjuncts may not have the terminal degree often necessary for full-time faculty status, and, therefore, they may not have the same academic training. Such programs should, therefore, use full-time faculty whenever possible, being mindful not to overwork them as previously mentioned, for example, 80% of the faculty in our School of Continuing Education are full-time faculty members and a similar percentage are chosen to teach in the on-site programs. Finally, such programs can create pressures on the faculty to overadjust to the uniqueness of the students and to move away from the more strict academic environment often found in on-campus programs. The pressure to do this is a real one since the students all work for the same corporation and have much in common and since the instruction happens at the workplace. These situations create an atmosphere where the instructor might stress relevancy over content--job content over academic content--and, perhaps, less content instead of more content. Such problems can be minimized through director monitoring of each course using techniques such as student evaluations, discussions with the faculty member, and, perhaps, on-site visitations.

Finally, there are certain criteria for any on-site course that are necessary for the smooth operation of the course. These criteria come from my experiences from directing and teaching in on-site programs as well as the experiences of other faculty in the program. I believe them to be generally universal in nature and thus applicable to most all on-site teaching situations. First, any instructor teaching in the corporate setting must recognize the uniqueness of this type of class. These students are inherently different than the average college-age student. They are older, generally more mature, often are married with children, and are employed full-time at the same corporation as the other students in the course. Thus, they have different interests than other full-time students as well as different study habits. For example, the students in my on-site courses typically average thirty to forty years of age, are married with children, are middle managers within the corporation, and have previously attended college usually without finishing the degree program. In essence, these students must be treated differently than other college students. Second, on-site courses should contain equivalent substantiveness when compared to the other courses taught at that college or university. The company almost always requires such common ground and with good reason. Since the corporation usually pays the full price of tuition and books, corporate executives want students to receive a first-rate education, something less will generally not be tolerated. For example, I was originally asked to teach at the Walt Disney site replacing a very popular adjunct faculty member who had become popular with the Disney students because of his tendency to give very high grades with very little required work. It took the students awhile to adjust to higher standards, but they soon did and, ultimately, were happy with the new situation. Third, on-site courses must emphasize a degree of job relevancy. It seems that both the corporate executives who support the program and the students believe that the information gained from the courses should have a degree of relevancy to the jobs held by the employee-student. In fact, courses are chosen from the college curriculum which seem most relevant to the particular corporation. Instructors need to adapt to this request. In public speaking courses, for example, students in on-site courses often present speeches about subjects relevant to their particular job--speeches in fact, that they often do deliver as they perform their jobs. This relevancy should be looked upon positively by the college. Theory can still be emphasized while examples and applications can be drawn from the job experience. Fourth, on-site courses must include what I term "unwinding" time. Since on-site classes often are held in the late afternoon or in the early evening-usually immediately after the work day is completed--the employee-students require a time to leave the corporate environment and enter the academic environment. This is the "unwinding" time. These students typically desire to begin a class by a discussion of what went on that day in their respective areas of concern. I usually allow approximately fifteen minutes at the beginning of each class to allow the students to interact about their daily situations. In my courses this was especially appropriate since much of the conversation concerned the subject of communication which had occurred during that particular day. Finally, on-site courses need to incorporate a variety of instructional techniques in instruction. Students who enter an academic situation immediately after coming from a corporate situation do not need nor usually desire, a lecture mode of instruction. It seems that ln this atmosphere there is needed an instruction which builds upon student interest and does not destroy it. These students, especially, do not desire to sit through a lecture of academic material. Instead, it is probably academic material presented in a variety of interesting ways that will be most effective for these students. It seems as if a combination of content presented via a lecture, experiential, and game mode will be best received.

In conclusion, it is clear that teaching college courses in on-site corporate settings to professional level staff is an important and growing aspect of American academic life. While there are clear advantages to such on-site programs, there are also potential disadvantages which must be addressed by the participating colleges and universities. There are also important criteria that must be met for any course or program of on-site teaching to succeed.

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The author wishes to acknowledge Robert Miller, Dean of the School of Continuing Education at Rollins College and Randy Reardon, Human Resources Development, Walt Disney World, The Walt Disney Company, Inc., for their assistance in writing this paper.

CASE STUDY: A MARKETING PLAN FOR THE DELIVERY OF CONTINUING EDUCATION SERVICES TO CORPORATIONS, INSTITUTIONS AND COMMERCIAL BUSINESSES

David Kozlowski

Triton College has chosen to approach its marketing plan to the private sector through a partnership perspective. In the broad sense, we are the nations partner in rebuilding the workforce. In a narrower sense, we are partners of local business to retrain and upgrade their workers, and provide assorted business services dedicated to the overall improvement of the local economy.

Our thrust then is on marketing, not just promotion and the focus on the needs of the American workers.

Marketing

The four P's of marketing, product, price, place and promotion were used as a basis for developing our plan. With this orientation in mind, we decided our product (program) must reflect a willingness for modification to meet the special needs of companies or individuals. The place (schedule) would list the times and locations that meet those needs. The price would utilize a variety of payment systems and promotion would utilize innovative approaches to reach adult and non-traditional students.

Markets

In pursuing our mission to deliver area services to upgrade and retrain workers, two main market segements were targeted; individuals and companies. Targeted companies were broken down into large and small concerns. In our market, we categorized companies of 150 or more employees as large companies. Individuals were also divided into three groups; the 18 to 24 year old under-employed, the soon-to-be-obsolete worker and the dislocated, laid-off worker.

Companies

The main products we chose to market to companies were our Employee Development Institute, which delivers workshops, seminars, and contractual on-site training, the Career Planning and Placement Center, which offers automated placement and employee assessment, and our Mid-Metro Economic Develoment Group, which offers a full array of economic development services, and brokers the full array of business assistance services of the College to the private sector.

Our pricing varied between services and with traditional campus offerings. For example, fees are assessed for contractual on-site training on the basis of the number of contact hours, and the level of our direct costs. Charges for our short-term training programs ranged from $150 to $800 per student and tend to meet more hours per week for a fewer number of weeks.

We adopted a posture of maximum flexibility when locating our services. The campus, hotels, the work site, and store-front locations were put into use around the clock and seven days each week as needed. Heavy emphasis was placed on co-sponsoring programs with other professional organizations. Examples include the Association of Information System Professionals, the Building Officials Code Administration, The Builders Association of Chicago, Inc., and the Associated General Contractors of America. In addition, an existing partnership with General Motors led to a series of automotive aftermarket seminars and a new partnership with Ford Motor Company.

The promotion of workshops and seminars is by direct mail. Lists are purchased, borrowed and supplemented by names and addresses developed internally.

On-site training was promoted through a specific "Triton for Training" campaign. Personal letters were sent to selected individuals at large companies to generate appointments and leads. Our main "pin stripe" brochure, which explains our training capabilities and contains testimonials, was developed as a carry-along item to the appointment. Reprints of favorable newspaper articles on relevent College programs are included in a folder. These serve to substantiate our credibility to deliver training to business and industry, and familiarize those individuals who have not had previous contact with our college services.

Career Planning and Placement was promoted through a piece called the Career Guide Yellow Pages and a tri-fold companion piece to the "pin stripe" series. Four of these companion pieces have been produced to visually present a unified approach for services geared toward the private sector.

Promotion of all of the aforementioned programs is also carried out by the contacts initiated through our Mid-Metro Economic Development Group. While performing an industry retention study and working with area businesses through the Small Business Development Center and Federal Contract Procurement Center, numerous business referrals are made to other campus services. To facilitate cross-referencing of services and leads a Business Services Committee composed of representatives from each of the business outreach areas meets monthly. This group is presently developing a product manual to be used in all future calls on business to increase our saturation of services to the private sector. Internal training sessions are being held to familiarize personnel with the services offered by other business service areas.

The products we chose to market are our traditional courses, special courses, seminars, workshops, and technical assistance and information. These and our Mid-Metro services are detailed in a brochure called our Business Services Yellow Pages which is mailed to each of the 4,000 businesses in our service area twice each year. We adopted the "yellow pages" idea to build on the existing familiarity individuals already have in using that source as a reference, hopefully delaying or eliminating casual discard.

Individuals

The structure of our services to individuals is:

Unit	Educational Product
Career Education	Degree, Certificate
Short-Term Training (EDI)	Short-Term training, JTPA
Career Planning and Placement	Testing, career counseling

The product strategy consisted of the development of new certificate areas for Career Education, creation of the short-term training option, and new degree programs. New brochures were developed to market these programs.

Offerings were expanded into previously unused time slots. For example, our computer operator training was offered from Midnight to 4:00 a.m., Monday through Thursday. Express courses were instituted and 6:00 a.m. classes were targeted to specific groups.

Summation

A coordinated marketing approach coupled with cross-referencing leads, improving internal communication, establishing partnerships and networking with the private sector have allowed us to establish a strong image and presence. To further improve internal communication between the different areas within our college, we developed the Business-Industry Tracking System (BITS). This automated system lists all client contacts, the date, who was contacted, the nature of the contact, and can be accessed by company name, geographic area, or college area.

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KEEPING THE COMPETITIVE EDGE; THE CENTER FOR APPLIED RESEARCH IN TRAINING FOR EMERGING TECHNOLOGIES (CARTET)

Mary H. Watson

Overview

Today, as never before, a "crystal ball" would be a major asset in any educational institution. Whether one calls the changes occuring in technology "High Tech," "New Technology" or "Advanced Technology," "There is general agreement among economists and others that one of the most powerful forces influencing the American economy is technological change" (Mansfield 1968). It seems safe to say that technology is also influencing not only what is taught in our institutions but also the methods used. With change occuring at ever increasing rates the question of how to prepare technicians for jobs that may not yet exist puts a tremendous strain on planning decisions. Training in technological career fields must be flexible to provide relevant skills for a changing clientele (Finch and Crunkilton, 1985).

Resources are limited and change is expensive, therefore bringing about an increasingly difficult situation for educational institutions who can ill afford to make mistakes. Added to this dilemma is a changing student population. As the population ages (Population Estimates and Projections, Series P-25), fewer persons in the traditional age groups will be entering the post-secondary educational system. But technology shifts will demand new skills of those workers already employed. How can technical training institutions respond to such diverse needs?

If higher education is to remain a "resource of singular importance" (Johnson, 1984), the changing demands of the marketplace must be reflected in curriculum and instructional methods. Educational institutions have a mission to undertake in educating today's students if the United States is not to lose its competitive edge in technological development. "Our once unchallenged preeminence in commerce, industry, science, and technological innovation is being overtaken by competitors throughout the world" (National Commission on Excellence 1983). As never before, postsecondary institutions are being asked to respond, support, and adapt their resources and programs to the specific economic needs of private and public sector organizations (Miller, 1984).

The School of Technical Careers (STC), Southern Illinois University in Carbondale, Illinois, has long been active in providing innovative instruction within technical career fields. Such innovation includes providing instruction in a wide range of technological areas to a heterogeneous student population both on campus and off. Off campus education occurs in the form of courses taught on military installations all over the country. Distance learning opportunities are provided for those students unable to participate in on-campus classes. STC provides both AAS and BS degrees and students frequently complete a two year AAS degree program, work for a year or two and then return for the higher degree. STC maintains excellent relationships and agreements with a number of major corporations, as well as with smaller industries. These businesses serve as locations for internships, provide skill updating for STC instructors, and are, of course, a source of jobs for STC's graduates.

The question remains, however, what to teach and how that information can best be delivered. To continue to be both innovative and relevant requires constant study of the marketplace and its needs for skilled workers as well as an awareness of student needs within a heterogeneous student population. Thus was born the idea for CARTET, the Center for Applied Research in Training for Emerging Technologies. Questions generated by thoughts stated above and many more like them propelled the Center into a precarious existence.

This applied research unit has been set up to study the basic questions of how education and training for employment in an emerging and ever-changing technological society are organized, the dynamics of growth and change and how present educational structures can and must adapt to continue to provide relevant technical training. Future planning, based on CARTET's findings regarding changing needs in advanced technologies, will enable university administrators and curriculum developers to make best use of ever-scarce education dollars.

Post-secondary education today frequently extends beyond the formally accredited two and four-year collegial institution. There are upwards of two million adults participating in what is sometimes termed the "other system." This system is composed of programs for increasing skills held in proprietary schools, government agencies, business and industry, the military, unions, professional associations and health care facilities. High tech training within this "other system" is a growing factor in education. On-the-job training is growing to meet advanced technology demands (Ketteringham and White, 1982). It is reasonable to anticipate that industry will, in the future, become more and more involved in the process of education for its employees. Some corporations already grant degrees and provide state-of-the-art equipment and research opportunities that far surpass that found on our campuses today.

CARTET's Objective

CARTET's primary objective is to identify changes necessary within the technical training curriculum and delivery systems presently in use to maintain career relevancy. Included in this research will be studies aimed at economic development, productivity and training which have emerged in industrialized areas in the United States as well as in other countries - particularly Japan and West Germany. Developmental patterns identified may well serve as indicators for trends in technological development in Southern Illinois. Occupational structures are changing because of technology changes and economic factors. What is appropriate method and content today may not be relevant tomorrow. The question is one of response to changing needs.

CARTET, as a research-oriented program, provides an academically viable avenue for studying emerging technologies, the impact of change on present training and traditional and non-traditional delivery systems. Research of this type is demanding and crosses traditional division/department boundaries. Therefore, it cannot be expected to be accomplished within the confines of each department within the university community. Constraints of time, staff and resources make this unrealistic. The research CARTET will conduct and the results of such efforts will, therefore, be available to university, industry and other interested entities.

Organization of CARTET

CARTET is housed in the Office of Project Development, Management and Evaluation (OPDME), a unit within the School of Technical Careers. The center is attached to the Dean's Office and is guided by the Director of OPDME, who reports directly to the Dean, School of Technical Careers. At the present time the project is staffed by a Research Project Specialist and the part time services of a graduate student. Secretarial assistance is provided through the staff of OPDME.

Funding for CARTET

Funding requests have been developed and are presently being considered by the SIU Administration. Also, a number of private foundations have been contacted. While no one has, as yet, committed funds to the center, the School of Technical Careers is providing startup resources.

CARTET - Phase I

Development is in the first phase and as a beginning CARTET will seek to develop linkages and contacts with institutions conducting similar activities. The construction of a network of research units developing and sharing their efforts can provide a good starting point and, at the same time, avoid duplication of effort.

Several broad topics of inquiry have been decided upon. Topics to be researched will be clustered around three specific areas and will include:

1. Technical education and non-traditional methods
2. Technical education and employment for tomorrow
3. Collaboration between technical programs and employers and non-traditional students.

In an effort to provide a data base which can be utilized to study the trends in technical training needs, a survey of area industries will be developed. Over the next twelve months, the data base will be assembled utilizing the survey tool presently being developed.

Microsoft File Program for the Macintosh computer is being used to store and organize the information from the survey. This program will file varied employer data including name, address, number of employees, projected growth and anticipated technical skills needed. The survey will not be limited to industries usually considered "High Tech" but will include a range of industries in order to provide a more complete employment picture. To aid in statistical analysis, a modem has been installed to provide a hook-up to the mainframe computer on the Southern Illinois University campus in Carbondale. All of this takes time, of course, and while the telephone line and modem are installed, the software to run the program has not yet arrived. These 'mechanical' aspects of getting set up are proceeding, pretty much on schedule. Once the tools are in place; survey, modem, and software; the real work can begin.

The survey will pinpoint the technical skill needs of new and present employees. Along with identifying the skills needed today, it will also determine how the industries surveyed anticipate developing needed skills. What training tools are perceived within the industry as most effective and does the industry expect to provide the training in-house, within a technical school setting, or in some other manner, are questions to be answered. Additional questions will identify technical skills the industry anticipates requiring within the upcoming five and ten year periods. A final question in this first phase of CARTET will be who is expected, by the industry, to be the provider of the required technical training.

CARTET will, in addition, provide a setting for research by interested faculty members within the School of Technical Careers. As CARTET grows and becomes stronger it can become an avenue for faculty development and enrichment. The information compiled via the initial survey will be available for use by STC faculty and other interested scholars. Faculty and industry respresentativas, through linkages already forged, or new ones to be developed, will be encouraged to bring their questions to CARTET and to work through the Center in joint research efforts. This cooperative effort may well become one of CARTET's most positive benefits.

CARTET - Phase II

A great deal depends on the development of the initial data base in Phase I, including the specific questions to be addressed in Phase II and the linkages with other research units. No definite questions have been set for the second phase. At the end of the first year, CARTET's efforts will be evaluated and Phase II's direction will be determined. Evaluation will be in the form of a detailed report presented by the researcher(s) to the Director of OPDME and the Dean of STC. Evaluation factors will include,

1. External research funding developed.
2. Education needs for technical training identified
3. Faculty involvement in research.

4. Number of formal agreements, statements of cooperation.
5. Reputation for research indicated by papers, presentations, publications, etc.

The direction Phase II will take and the research questions to be answered will be determined after the evaluation of CARTET's first year has been completed. Economic trends and growth factors will be studied and ongoing efforts to develop cooperative agreements with other institutions working on similar questions should provide a broad spectrum of data for study. Such links with other research centers will continue to be an important factor.

Anticipated Benefits

Competition is the name of the game in education as it is in the rest of our society. Competition, for students, grades, faculty members, and jobs, exists in every area of our lives. As the pace of change accelerates due to rapid technological developments, competition for advanced technology jobs will increase (Levin and Schultz, 1983). CARTET's research findings can provide STC with the capability to respond to the demands of the marketplace in a reasonable and timely fashion. The programs within the School of Technical Careers draw upon the offerings of the total university for core courses. Improved program planning and training, both traditional and non-traditional, can serve the wider university community by creating increased demand for their product. CARTET's research findings can provide clues to what technical training curriculum can best serve both the student and the industry. This, in turn, means the institution prospers by providing the technical skills that are relevant for the student. Working together to determine future technical skill needs and how to provide relevant training in these rapidly emerging and changing technical fields can spell success for everyone involved.

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THEORY SEMINARS: BUILDING ON EXPERIENTIAL LEARNING

Leah S. Harvey

Introduction

Metropolitan State University is an upper division university, established in 1971 to serve the unmet needs of adult students in the Minneapolis/St. Paul metropolitan area. Because of this emphasis on serving adults, the university has a strong commitment to recognizing the experiential learning students bring with them to the university. Like most institutions recognizing prior experiential learning, Metro State has seen many changes both in the process used to evaluate competence and in the kinds of competencies submitted for university recognition by students. As standards improved and criteria for prior learning became more refined, the number of prior competences dwindled. Standards had evolved to the extent that very little of the knowledge students brought with them to the university met criteria for upper division university level learning. Thus, an early concern for the quality of prior competence was replaced by a concern for a decrease in prior competency. The challenge, then, was how could the university balance the importance of being competency-based and recognizing adults experiential learning with a commitment to standards of academic quality?

This challenge arose, in part, because of the nature of traditional courses and independent studies and of the prior competence assessment process. Courses and independent studies are limited in that they virtually ignore the learning experienced adult students bring with them into the classroom. Textbooks for most classes and independent studies are geared toward younger students with little practical experience. Furthermore, experienced students find that courses designed for students new to a field are often repetitive and uninteresting.

The assessment process alone, on the other hand, raises concerns about quality, and is often threatening to students who have been long absent from college and have little knowledge of what is expected for university level recognition especially at the upper division level. Students are often reluctant to have their competence judged by university "experts" using criteria with which the students are not familiar. Furthermore, the assessment process lacks the intellectual stimulation of a classroom in which experienced adults learn from each other.

An Alternative

Metropolitan State University devised a seemingly logical solution to this dilemma by creating learning opportunities which, we believe, combine the advantages of sponsored learning and those of the assessment process. These are theory seminars--shortened courses (6 to 15 contact

Theory seminar formats vary. A religious studies theory seminar is held for six hours on a Saturday; students are then given a take home exam. This, the shortest and most condensed of the theory seminars offered at Metro State, is unique in that students came to it with almost uniform knowledge and experience--knowledge of the old or new testament and participation in bible studies programs. Theory seminars in other areas, such as counseling and human services administration, were longer--up to fifteen hours spread over a two month time span. In all cases, instructors assumed previous knowledge and linked any lectures, discussions, and other classroom activities to that knowledge, using students common experiences as bases for new learning. In general, the theory seminar process had the following similarities.

1. Preparation
    a. Diagnostic testing
    b. Communicate instructor s expectations in writing or through phone conversation
    c. Assign reading for first seminar session.

2. First session -- faculty structured
    a. Introductions.
    b. Through lecture/small group discussions show students how their prior experiences relate to the history, assumptions, and theories/theorists/models in a field.
    c. Assess the extent and kind of each student s prior knowledge and make individualized assignments on the basis of those assessments.

3. Students work on independent projects, alone, in groups, or with the instructor focusing on integrating their new learning and their prior learning and experiences.

4. Assessment
    a. Review student products.
    b. Student critiques of each other's work.
    c. Possible written or oral test.

Planning the Alternative[1] Upon receiving funding from FIPSE, a small group of Metro State faculty began developing theory seminars in their subject areas. This group of faculty met regularly and worked together to develop diagnostic tests, theory seminar syllabi and assessment instruments in their fields. They critiqued each other's work and shared their ideas and approaches to teaching theory seminars. This sharing was especially important, since they were developing a new teaching format; it very hours) designed to cover the knowledge often lacking in experiential learning.

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[1] The materials used to develop theory seminars have been put into a Handbook, available for a fee from Metropolitan State University, 121 Seventh Place E., St. Paul, Minnesota 55101 (612)296-4449.

The university applied to the Fund for the Improvement of Postsecondary Education (FIPSE) for funding to refine the concept and to work with a group of faculty to develop model theory seminars. These seminars have four important attributes:

1. Instructors cover the material most frequently absent from experiential learning.
2. Teaching builds on students' experiences, using those experiences as a starting point and making them integral to further learning.
3. Students learn to analyze and compare theories and the relationships of those theories to real life experiences.
4. Students learn to better access resources in the field, enabling them to further their individualized studies.

Theory seminars are part of a three step process.

1. Self scoring diagnostic tests are used to appropriately refer students with sufficient theoretical and practical knowledge directly to the assessment process, students with practical knowledge, without a theoretical base to theory seminars, and students with minimal knowledge to courses.
2. Students attend a theory seminar which combines independent study with classroom interaction.
3. Appropriate assessment techniques are used to evaluate each student's competence.

Although these learning opportunities are called theory seminars, they are designed to cover all material not usually gained through experiential learning. This incudes, but is not limited to theories in a field. The knowledge students bring with them varies depending upon the subject. For example, students in literary analysis would have knowledge of the content of some literary genre,. those in counseling would know "how to" counsel. In both cases, they might not be familiar with specific theories or the language of the subject. In most cases, though, students come with knowledge of either the practices in a field (e.g. studio arts, public relations, or of the content in the field (e.g. religious studies) and the theory seminar content generally emphasizes the following.

Theories, theorists, and models
Methodology. critical analysis, scientific inquiry, use of evidence
History and current trends
Knowledge of assumptions, values, frames of reference, points of view
Ethical or legal considerations
Aesthetics and style

quickly became clear that, because they relied heavily on students prior learning, theory seminars could not be developed as short courses.

In the development process, a number of difficulties were encountered. Defining the content of what should be taught was difficult for two reasons. First, instructors do not often clearly articulate what it is they expect students to know in their fields. Second, instructors had to do more than articulate their expectations, they had to identify those components in their fields which students were least likely to learn from prior experiences.

After identifying the theoretical components, of a given field faculty developed diagnostic tests which would both 1.) screen out students who were not ready for the theory seminars and 2.) identify students who would be able to move directly into the prior competence assessment process. Most diagnostic tests are self-scoring so that students can determine for themselves which course of action is best. This saves faculty time and is less threatening for students than are tests scored by instructors. Since the tests are for referral and not for evaluating students, reliability and validity are less important than ease of testing and scoring. Since faculty had little experience doing diagnostic testing, this was a difficult task. In many cases, because faculty tried to steer students away from the prior assessment process, they made the tests too difficult and pushed students to the other extreme--out of theory seminars and into courses.

The last step in the theory seminar development process was identifying appropriate assessment techniques. This was the easiest task, since Metro State faculty have extensive experience in the assessment of prior experiential learning. Because enrollments in theory seminars are smaller than those in courses, faculty are able to use assessment techniques (e.g. simulations) that they might not have been able to use in their courses. This makes it possible for faculty to evaluate both the content covered in the theory seminars and the practical knowledge and experience the students brought with them to these seminars.

Conclusion

In all cases, the theory seminars have been a success for both students and faculty. Students find that the format makes efficient use of their time and shows a respect for the knowledge they bring with them to the university. Faculty find it especially rewarding to work with students who have extensive practical experience, enjoy the small group interaction, and are pleased by the level of performance demonstrated by the participating students.

At Metro State, theory seminars have been an exciting addition to the curriculum. The collegial approach used to develop theory seminars was also exciting,. the outcome was more than the resulting theory seminars. The process provided Metro U faculty, who are primarily community (or adjunct) faculty, a unique opportunity to interact with their colleagues and to discuss academic issues. Their discussions provided opportunities for professional development which are certain to benefit them in all their teaching endeavors.

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QUESTIONS FOR ADMINISTRATORS OF EXPERIENTIAL LEARNING PROGRAMS

Barbara Mayo-Wells and Raymond W. Campbell

Programs designed to provide students with college-level academic credit for learning they have gained through life experiences are not uncommon in the United States, although they are still considered nontraditional. As the student population grows older -- because there are in general population fewer people of traditional college age, and because increasing numbers of adults are returning to college to begin, complete, or supplement their education -- the number of such nontraditional programs is increasing. It is not only in the United States that such a trend exists. Recently, postsecondary institutions in the U.K. and Norway have sent representatives to The University of Maryland University College to learn about EXCEL, the experiential learning program that has existed there since 1978. While both the credit yield and the number of EXCEL students are small compared to the total University College student population, the fact that for any given student EXCEL may provide the equivalent of one-fourth of a baccalaureate degree (30 semester hours credit) requires that close attention be paid to the academic rigor of the program.

EXCEL, like most other programs for the assessment of prior learning, is a member of the Council for the Advancement of Experiential Learning (CAEL), and follows many of CAEL's guidelines. Still, each such program is of necessity as individual as the institution that houses it and must conform to the degree program of which it is a part. So EXCEL's administrators have given careful thought to the philosophies underlying their program and to the means for administering it with both academic rigor and fiscal viability. While our solutions may not prove workable in all institutional settings, we present the questions from which they arose as worthy of consideration by others who are implementing programs for the assessment of prior experiential learning.

EXCEL'S Assumptions About Prior Learning

1. Adult Students have had a variety of life experiences.
2. Those life experiences can (but do not always) result in learning that is equivalent to college-level learning. Note: College-level learning (a) is at the collegiate level, as defined by faculty experts, (b) has a theoretical, not solely a practical, basis, and (c) is generalizable, that is, can be applied outside the specific context in which it was gained.

3. Within reasonable limits, such learning has an appropriate place in a college curriculum.

4. Some (not all) students can articulate and document the college-level learning they have gained through their life experiences.

5. Their learning, NOT their experiences, can be realiably assessed to determine whether or not credit can appropriately be awarded.

Principles Underlying the Administration of EXCEL

* Maintaining the academic integrity and credibility of the program is paramount.

* To cheapen the value of one student's degree would be to cheapen the value of every degree conferred by University College.

* EXCEL is not for everyone. Prospective students must be carefully screened on the basis of objective criteria.

* Admission to EXCEL does not guarantee an award of credit.

* Guidance is necessary to enable a student to produce a creditable portfolia. (For EXCEL students, this guidance is provided by a three-credit portfolio-preparation seminar.)

* Delineation and documentation of learning go hand in hand; both are essential to the effective evaluation of experiential learning.

* Evaluation of students' portfolios must be left in the hands of the faculty -- BUT faculty evaluators must receive special training and orientation to experiential learning.

* EXCEL can award credit only in academic areas for which the University can provide competent faculty evaluators.

* Duplicate credit must never be awarded for the same learning.

* Because experiential learning represents knowledge acquired outside University College, it is considered transfer (rather than residential) credit.

* The EXCEL program must be self-supporting, not profit-making.

* EXCEL does not "sell" credits. It awards them, on the basis of stringent criteria.

The assumptions and primciples listed above, because they are congruent with the goals of University College, have provided EXCEL with a solid basis on which to operate. Even so, a number of perplexing questions have arisen during the past few years.

The Evaluation Process

The fundamental questions about evaluation of prior experiential learning, underlying all others, are these:

1. How can administrators and faculty evaluators ascertain that a student's portfolio truly substantiates college-level learning? After all, everyone has experiences but not everyone learns from them. And of the learning that does occur, very little is at the college level.

2. How can one avoid interpreting documentation (that an experience did occur) as evidence that learning also occurred?

For these questions, we have no ready answer. The level of a student's learning in ordinary classes is presumably indicated by the course designator, and if the student performs at a satisfactory level then we assume s/he is learning at the designated level. For ordinary classes, we also assume -- sometimes erroneously! -- that successful completion of required coursework means that learning has occurred. Thus, since our faculty evaluators bring their classroom experiences to the portfolio evaluation process, we expect them to apply those experiences appropriately.

Other questions concerned with portfolio evaluation relate more to logistics than to philosophy:

3. When a faculty evaluator recommends the award of upper-level credit,

a. Can it be assumed that the student has mastered all (or even any) prerequisite lower-level learning?

b. Should credit then be awarded for relevant lower-level learning, even though it has not been specifically described or documented in the portfolio?

Our answer is no. We believe that the portfolio should stand alone, a complete entity, and that evaluators should neither read between the lines nor make assumptions about what the student may know beyond the bounds of the portfolio. But we thus generate another question:

4. How can evaluators best be trained to achieve consistency in

a. Amount of credit recommended?
b. Level of credit recommended?
c. Avoidance of overlapping credit?
d. Handling of prerequisites?

How can we ensure a consistency of overall approach among faculty evaluators, without infringing upon their academic expertise?

We try, through written guidelines for evaluation accompanying each portfolio sent to an evaluator, through formal training workshops, through responses to evaluators' recommendations, through informal conversations with evaluators. But since each evaluator works essentially in private, we are constantly uncertain about the consistency of evaluations both within a given discipline and across all disciplines. And thus we wonder,

5. If an evaluator's recommendation seems too low or too high, should we ask another evaluator to review the portfolio? And

6. If so, how should we handle widely divergent recommendations -- e.g., 3 credits from evaluator A (presumed to be too low) and 24 from evaluator B (is this in fact a realistic recommendation, or too high?).

We have indeed sought supplemental evaluations, not often, and have felt guilty each time we've done it. We have come to believe that in such cases once the second evaluation is complete we should invite both evaluators to meet with us and jointly thrash out an appropriate award of credit. We're grateful that the need to do this doesn't arise often, since the process is time-consuming, costly, and fraught with the potential for acrimony.

Probably questions 5 and 6 can be largely avoided by careful attention to the training of evaluators.

7. How can administrators be certain of the authenticity of students' supporting documents? What approaches can students, faculty evaluators, and administrators take to demonstrate or verify the authenticity of such material?

Each time we send out a flock of portfolios to be evaluated, at least one faculty member is certain to ask: "How do I know that the material in this portfolio is genuine?" While we -- having interviewed the students during screening, and having discussed the portfolio with the seminar instructors -- are fairly certain that our students have being honest in their presentations, we nonetheless realize that the evaluators may lack this certainty. And we are still grappling with solutions to this problem.

Strategy

Experiential learning is often viewed with great skepticism by traditional academics. So administrators of programs like EXCEL must often devise strategies for converting the reluctant. Our two most serious questions have been:

8. What is the best strategy for expanding the range of academic areas that can be evaluated? What are the institutional constraints? The political considerations?

9. How can skeptical potential evaluators be persuaded that collegiate learning can in fact occur outside a collegiate institution? What's the best response to the attitude, "If the student didn't learn it in my classroom, s/he doesn't really know the material and certainly doesn't deserve credit!"?

Since the answers to these questions depend on the institutional climate, we offer no answers -- only the comment that just when they seem to have been aswered once and for all, then they crop up again in a new guise.

The Role of Experiential Learning in the Curriculum

Assuming that an institution has committed itself to awarding credit for prior experiential learning, there are still many questions to be settled. For instance,

10. May experiential credit be used in partial fulfillment of specific curricular requirements? If so,

a. All requirements?
b. Only some requirements? Which ones? How is the decision made?
c. What happens when a student receives only partial experiential credit (say 1 or 2 credits toward what is ordinarily a 3-credit course)? Must the student take the required course? Must, or may, the student accept the experiential credit too?

11. What happens when a student's recommendations for experiential credit exceed the institution's ceiling (our is 30 credits) for experiential credit? Do you stick to the limit? Raise the ceiling or everyone? Decide on a case-by-case basis? Is academic credibility then affected?

For many of our colleagues at other institutions, the labeling of experiential credit has been troublesome. At issue, of course, are the transferability of credits to other institutions, and so-called "truth in labeling."

12. How should experiential credits be recorded on transcripts?

On each of the four issues below, common practices differ widely depending on the institutional setting. We have listed our own practice as the first alternative.

a. Labeling the credit "experiential" vs. recording it like all other courses offered by the institution.
b. Considering it transfer, as opposed to residential, credit.
c. Recording titles descriptive of the learning that is being credited vs. using specific course titles matching those in the Catalog.
d. Recording credit as rough course equivalents vs. posting credit in a bloc (e.g., 22 credits), which may or may not be broken down into units by academic discipline (e.g., 9 credits computer science, 9 credits business management, 4 credits data processing).

Financial Questions

The fundamental question to be answered is whether experiential learning is a service or just another course offering. If an experiential learning program is provided as a service, it will of course not have the same financial obligations as a program that is expected to break even.

13. Must the program be self-supporting? In full? In part?

14. If the program is self-supporting, how can it be protected from the criticism that it "sells" credits?

15. How should students be charged for the evaluation process and for credits awarded as a result?

a. If there is a portfolio-preparation seminar, should it be credit-bearing or non-credit? Concomitantly, should it be fee-based or free?

b. Is it necessary to keep separate the costs of evaluation and the costs of posting credits? (If so, some combination of evaluation fee plus posting fee will no doubt be necessary.)

We formerly used the tuition approach to charging for experiential learning credit. (Tuition was low, and the funds generated were barely sufficient to pay the costs of program administration.) However, our current tuition is over $80 per credit, and under the tuition system a student who earned the maximum of 30 experiential credits would pay $2400, as much as it would cost to earn the same number of credits by taking traditional classroom courses. This expense is prohibitive (few of our students ever register for more than 12 credits per semester) and would discourage students from applying to EXCEL. Moreover, we don't need that much income to keep the program afloat. So several years ago we switched to an evaluation fee/posting fee system. Our portfolio evaluation fee is $150.00 for one or two evaluations, $250 for three or four evaluations, and #350 for five or more; the typical portfolio receives two evaluations, and the evaluation fee covers payment to the faculty evaluators. Our posting fee is $30 per credit, and defrays the administrative costs of the program. Thus a student whose portfolio receives two evaluations and earns the maximum 30 credits would pay a $900 posting fee in addition to the $150 evaluation fee, a total of $1050. This is enough to keep our program fiscally sound, and a sufficient savings ($1350 in this hypothetical case) to make EXCEL attractive to students.

16. How should faculty evaluators be paid? What's fair, and yet within budgetary limits?

The most commonly used approaches are:

a. No payment to faculty, whose evaluation of portfolios is simply a part of the non-teaching duties covered by their regular salary.

b. A flat fee for each portfolio evaluated, regardless of the size of the portfolio.

c. A sliding fee, dependent on the scope of the portfolio..

d. An hourly rate. (If so, what?)

Because we have no resident faculty (all are adjunct, hired to teach one course at a time), we do pay our evaluators. We have chosen to pay a flat fee for each evaluation, although we are aware of the inequities in this system since the portfolios vary tremendously in size and in quality. To a certain extent, we alleviate the problem by assigning several portfolios (both strong and weak portfolios in the same group) to each evaluator. The amount of time an evaluator spends thus averages out fairly well.

Summary

The experiential learning program must answer these questions within the context of its institution's missions and goals -- and the program that ignores or evades such questions does so at its peril. It is our hope that by raising these problems for open discussion we may help some of our colleagues avoid difficulties in administering their own experiential learning programs.

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TELECOMMUNICATIONS-BASED LEARNING: THE FINAL EDUCATIONAL FRONTIER?

Barry A. Centini and John A. Scigliano

Background and Introduction:

Alternatives to traditional graduate education have been increasing to fill the needs of students who find themselves in jobs or locations that prohibit an extended residency on a university campus. Since the early 1970's, many universities have provided "weekend" programs in a wide range of disciplines with labels like "external degree", "off campus","field-based" and "cluster program" used to classify these developments. The rise of programs in the non-traditional arena can be attributed in part to the difficulties of making changes in policies or rules in the traditional environments. Other factors that restrict traditional offerings are limits of minimal class size, instructor availability, qualified faculty, delay in initiating new programs and courses, and the limitations of time and space.

These constraints and limitations, among others that affect university academic programming, make it feasible for alternative delivery systems to emerge either through changes in the "time" a course or program is made available, through "options" in the content of the program, or through "how" a program is delivered. Today, the alternative in the category of "how" a program is delivered, generally means that some form of technology is involved. The technology used ranges from satellite delivery of video programs, to cable television, personal computer, and the ordinary telephone. The main differences now between "traditional" graduate education and the non-traditional is whether an electronic or technological device is used in delivery, however some campus- based programs apply these techniques with considerable success (Welsch, 1982).

Nova University's Non-traditional Programs:

Nova University selected a doctoral program as its first computer based exploration because of its extensive experience with doctoral level programming (Scigliano and Sroufe, 1979). The University currently operates graduate programs in many states around the country and has developed special focus programs for professionals in education and business for many years. The value added by Nova's computer-based programs is the electronic link between student and professor and the extensive environment for learning made possible by the availability of telecommunications networks, sophisticated software, and affordable personal computers.

The computer-based programs of Nova University depend heavily on the use of microcomputers, modems, and telecommunications networks along with a supermini computer host. Students from 26 different states, including Alaska, conduct their online classwork in cooperation with lecturers that teach the seminars. Students complete their online work using the tools of UNIX*, and they do additional work offline using a portable computer with a word processor and other utilities.

The CBL Programs:

The Nova information science doctoral program was developed at a time when traditional programs were closing down, yet today that program has a healthy growth rate and serves a national need. Because of the personal computer and telecommunications networks these programs are able to serve the needs of candidates nationally, whereas traditional campus-based programs have had to rely on a student pool in a local context.

Doctor of Arts in Information Science (DAIS):

> The DAIS program was designed for practicing librarians in school, college, university, public, and special libraries. It takes three years to complete. The first graduates are expected in the Fall of 1986.

Doctor of Arts in Training and Learning (DATL):

The DATL program began in the Fall of 1984 and enrolls students who hold full-time jobs in the corporate training field. The focus of the program is on providing opportunities for students to apply what they learn in designing computer-based training environments.

Doctor of Education in Computer Education:

Designed to serve the needs of teachers of computing in schools and colleges, this program grants the Ed.D. and covers coursework in computer languages and the applications of computers to education.

Doctor of Science in Computer Science:

Admission to the program is restricted to those individuals who hold a master's degree in Computer Science from an accredited university, are currently employed in computer science and have a minimum of two years work experience in this field.

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* UNIX is a Trademark of AT&T Bell Laboratories

Master of Science in Computer-Based Learning:

Online courses are used in this program to teach skills in instructional systems design and CBT development.

Computer Enhanced Field Based Programs:

Other programs at Nova University have adopted computer-based learning methods and delivery modes. The Doctor of Business Administration provides its course on strategy and policy in an online format and requires all new students to have a personal computer. The Doctor of Education in Higher Education program will enable new students to pursue their work toward the degree in an online format beginning this Summer.

UNIX as an Environment for Computer-Based Learning:

There are a few good reasons why UNIX was selected for use in the programs at Nova University. The obvious reason is that it is a powerful system that has been tested by thousands of Bell Laboratories employees for almost two decades, and it works well. UNIX has over 300 commands that can be used by students as they acquire the generic skills needed to function in the complex information environments of the 1980's. The UNIX system promises hope for professionals in meeting the challenges posed by the diverse and complex information problems of modern organizations.

UNIX applications packages used by students in the program include: relational databases, statistical tools, simulation languages, and numerous search and retrieval tools. All assignments, practicums, and dissertations are uploaded to the host machine where they are stored in online database for future reference by faculty and students. UNIX provides utilities to integrate the computer into the teaching/learning process in ways vastly different from the traditional classroom environment. In the UNIX environment the student maintains a high degree of control of his or her own learning.

All course assignments are available both online and in study guides for each course. Much of the work on assignments is done offline and then uploaded to the student's home directory. Later, assignments are mailed (electronically) to the proper destination or directory. Assignments are designed to require extensive manipulation of text or data by the many application programs in UNIX, and all text submitted to Nova must be treated by the appropriate tools of the Writer's Workbench (WWB). This paper has been analyzed by WWB programs and formatted with a UNIX program called nroff.

Lessons Learned in Developing an Electronic Learning Community:

In an electronic learning environment, productivity enhancement tools play a significant role in making learning more effective and efficient. Many different tools and utilities have been developed to help both students and faculty with academic matters: grading, assignment work, practicums, course development, etc. These tools have been developed using both UNIX shellscripting and C programming.

Course Writer's Workbench:

A series of authoring programs have been developed to aid students in developing their own CAI programs. They have been collected into the Course Writer's Workbench and are available to all students, staff and faculty for developing their own menus, tutorials and exams that in turn become interactive when run in the UNIX environment.

The Living Practicum and the Devil's Doorway:

A practicum is a research paper or project that solves a problem in the students work environment. When practicums are in the proposal stage they are copied into a directory called the Devils Doorway. They reside there open for reading by fellow students who write constructive comments. Traditionally, completed practicums have been printed, bound and stored away with the numerous other papers and books on the shelf. In an online format, however, the practicum take on a new "living" dimension. Here they are divided into replaceable modules -- a Bibliography file can be updated periodically -- and placed in a menu driven system that allows the reader the following options:

1. Read all or parts of the practicum.
2. "Talk" interactively to the author.
3. Add comments to the practicum that are electronically mailed to the author.
4. Read author's vita and biography.

The Typical Assignment:

Much of the work of students is guided by assignments prepared by professors on the staff. Each assignment contains objectives, tasks, and review questions that require the student to manipulate the UNIX environment, as well as, to design and analyze items on their local PC's. All assignments are sent in by students in electronic mail.

Tutorial Database:

Students are encouraged to use electronic mail to ask questions and receive answers to their online problems. All answers are installed in a tutorial database with appropriate file name extensions for cross referencing. In this way recurring problems can be handled by the system, reducing the need for online help from staff and faculty. An expert system is being developed that will handle the mail directly and either use the database or poll human experts online for answers, that in turn will be automatically added to the database.

Assignment Management and Grading:

As the number of students increase so does the demand for online expert systems that acknowledge receipt of student work, record its arrival, notify the appropriate instructor, and monitor, save and record feedback. A series of computer programs have been developed that accomplish this, and in addition send an electronic form letter to the student, with a timetable for expected responses. One option built into every "assignment mover" is the ability to add a personal note to the form letter.

Experiences in Program Operation:

Nearly three years of program development and application have resulted in some lessons learned and some frustrations overcome. The areas of frustration center on attitude, cooperation and time management.

The following list describes the attitudinal problems encountered in this program:

1. Student expectations are considerably different from those found in "sit down" programs--they seem to expect extremely fast turn around time and want services provided seven days a week and twenty-four hours a day.

2. Students with computer backgrounds do well, as expected, but do not seem to have a great advantage over their "computer novice" classmates in most courses. Typing skills come in handy, however.

3. Faculty qualifications include computer literacy and a work schedule that knows no barriers in place or time. Some lecturers are great in the seminar room, yet never login online. Consequently students miss the day to day interchange with these professionals. Some lecturers are great online, but have difficulty handling the seminar schedules.

The development and maintenance of a computer-based program requires a high degree of cooperation between the participating educational units and the computer center. It is probably a lack of such cooperation that explains the reluctance of many schools to get involved in networked computer-based learning. At Nova the Computer Center has devoted much of its time and energy into helping with the development of hardware and software for telelearning.

The UNIX operating system has a variety of time managing tools, but has yet to develop the 30 hour day necessary to monitor, maintain and develop programs in an active online mode. The development of expert systems to help handle the routine activities of long distance courses is fundamental to the assurance of quality control and program integrity. The ability to develop such tools is a necessity for those involved in daily operation of computer-based programs that have large enrollments.

The Final Frontier:

In the three short years since the opening of the first computer-based program at Nova University the number of users on the UNIX system that hosts the programs has grown to 800. The benefits to the University have grown far beyond the immediate course offerings in Information and Computer Science. The entire organization has formed an electronic community where all units of the institution are now able to communicate and share resources. The work in the computerbased environment promises to be equally challenging and rewarding to its participants in the years to come. Perhaps the final frontier is just the beginning of a new horizon in learning, where more effective communication can lead to more effective and enriched learning.

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ACTION RESEARCH: A GUIDING PRINCIPLE IN A NON-TRADITIONAL MASTER'S PROGRAM

Robert F. DeHaan, Steven Krupp, and Szabi Ishtai-Zee

Theoretical Orientation

The educational mission of the Lincoln University Master of Human Services Program is accomplished not only by the inculcation of theoretical constructs, but also by the execution of action research projects in a variety of field contexts. Kurt Lewin is the social scientist who most exemplifies the fundamental orientation of the program.

Lincoln's program is based upon the action orientation, because it works toward the integration of theory and practice. Ideas, constructs, and models are used not for their abstract, formalized elegance, but for their utility in solving problems and fostering innovation in the field. Lewin recognized that effective learning entails more than cognitive knowledge; social forces as well as motivation and attitudinal factors must be accounted for and specific skills need to be acquired (Lewin, 1951).

Lewin's action orientation and his ability to apply social science techniques to the analysis and amelioration of social problems led to the systematic development and application of the planned change perspective. This allowed for the synthesis and elaboration of concepts and tools which are culled from many disciplines and organized around the overarching theme of change. Change is a theme that has spawned models and techniques, which with necessary modifications, can be applied equally to individutals, groups, and larger social systems. Because students in the human services program must be able to function with facility in all types of systems, the change orientation has proven to be a strikingly useful and effective educational purview. Thus, change agentry skills are emphasized throughout the various phases of the program.

Effective change presupposes a systematic method which begins with observation and data gathering, evolves a plan based on the data, executes the plan, and then evaluates it to determine the effectiveness of both the plan and the execution. This basic four-step procedure is the prototype for all sound interventions, whether they take place in dyadic helping relationships, groups, or in larger scale change efforts. This indispensable model, based on the work of Lewin, is stressed throughout the program.

The change agentry perspective, called action research, was used to guide Lewin and his followers through a variety of practical projects. Intergroup conflict, marital tensions, race relations, industrial relations, cultural reconstructions, and the effect of groups on attitude change are just some of the problems with which Lewin grappled. (Lewin, 1948) Students in the Lincoln Master's program pursue the action orientation by thoroughly working through problems, beginning with the definition of the problem, and assiduously moving through data collection, strategy planning, intervention, and evaluation. Affirmative action, divorce, domestic abuse, discrimination and human rights, addiction, and dysfunctional organizational communications are among the many significant arenas in which students have altered the status quo and established new social equilibria.

The Curriculum of the Lincoln University Master of Human Services Program

Below are 11 characteristics of the Lincoln University Master's curriculum which set it apart from other more traditional master's programs.

1. The courses comprising the curriculum are organized in a matrix, as shown in Figure 1, rather than in a linear array as found in most traditional programs.

2. The columns of the matrix consist of five generic human services competencies. The competencies are: I. Self-directed learning, II. Helping relationships, III. Group processes, IV. Community planning, and V. Planned change and organizational development.

3. The rows of the matrix are intellectual dimensions applied to all the competencies: A. Values (ethics), B@ Self and others (social psychology), C. Systems (general systems theory and social systems), D. Skills (communication, problem solving, action research), E. Integration, F. Constructive action.

4. The intersections of the columns and rows define the domain of each course and seminar in the curriculum. Each course consists of a dimension and a generic human services competency.

5. The curriculum is iterative, it repeats the dimensions through every competency unit. Each iteration approximates more fully a complete understanding of the whole.

6. The curriculum is progressive. The first competency unit focuses on the student as a learner; the curriculum progresses to individual helping relationships, to group relationships, to organizational and community relationships, to the process of planned change.

7. The curriculum is integrative at two levels: A. It integrates academic dimensions and generic human services competencies and, B. Both of these are integrated with students' professional and work experience.

8. The curriculum has two major divisions, horizontal and vertical. The horizontal differentiates the first four academic dimensions from the last two field intergration and action dimensions.

Figure 1. Summary of Master of Human Services Program Curriculum

Dimensions	Competency Unit I	Competency Unit II	Competency Unit III	Competency Unit IV	Competency Unit V
	Self-Directed Learning	Helping Relationships	Group Processes	Community Planning & Program Mngmnt.	Planned Change and Organizational Devel
A. Values	HUS 501 Ethics for Human Services	HUS 511 Professional Ethics	HUS 521 Ethics and Groups	HUS 601 Community, Politics & Social Justice	HUS 611 Ethics of Management, Intervention & Change
B. Self and Others	HUS 502 Psychology For Human Services	HUS 512 Helping: Theories of Helping	HUS 522 Dynamics in Face-to-face Groups	HUS 602 Strategies for Community & Program Development	HUS 612 Psychology of Planned Change
C. Systems	HUS 503 Sociology for the Human Services, Introduction to the Nature of Systems	HUS 513 Human Systems and Helping Relationships	HUS 523 Social Analysis of Human Systems	HUS 603 Social Planning and Organizational Management Systems	HUS 613 Planned Change in Organizations and Social Systems
D. Skills	HUS504 Communicaion Skills for the Human Service Practitioner	HUS 514 Helping and Problem Solv-Skills	HUS 524 Skills in Social Research and Problem Solving I: Foundations	HUS 604 Skills in Social Research and Problem Solving II: Data Research	HUS 614 Program Evaluation Skills
E. Integration Seminar	HUS 505 Theory and Practice Integration Seminar	HUS 515 Theory and Practice Integration Seminar	HUS 525 Theory and Practice Integration Seminar	HUS 605 Theory and Practice Integration Seminar	HUS 615 Theory and Practice Integration Seminar
F. Constructive Action	HUS 506 Constructive Action	HUS 516 Constructive Action	HUS 526 Constructive Action	HUS 606 Constructive Action	HUS 616 Constuctive Action
	First Semester	Second Semester	Summer Term	Third Semester	Fourth Semester

The vertical divides the second year from the first, the first dealing primarily with direct client services, and the second with administration, organization and action research.

9. The curriculum is oriented toward action and problem solving rather than toward knowledge, per. se. Knowledge is to be validated through constructive action rather than through theory.

10. The students must complete 54 academic credit hours to graduate which they can do in two years. Students do not need to relocate if they live within 150 miles of Lincoln's campus. Academic classes are taught on Saturdays on Lincoln's campus; students attend a weekly seminar in a location near their worksites.

11. Students' agencies form a central focal point of their studies since it is in them that students integrate their theory and conduct their constructive action research projects each semester. In their last year students conduct a final change project in their agency which constitutes their Master's paper. The action research model is described below.

Requirements for being admitted into the program include three years of human services experience, current employment in a human services work situation, and successfully completing the admissions tests. A college degree is not mandatory for entrance into the program. Students continue to work full time while participating on the program.

The program has been in operation for nine and one half years and has graduated more than 450 students.

The Action Research Cycle

The action research model is based on the assumption that social change efforts are enhanced through systematic data collection around some perceived problem or goal (Cunningham, 1976) The fundamental components of action research are as follows: 1) Systematically collecting data relative to some perceived problem in a social system; 2) feeding the data back into the system; 3) taking action by altering the system, based on the operating assumptions or hypotheses about change; 4) monitoring the action through further data collection.

The Lincoln University Master's Program places social problem solving at the core of the curriculum. Students spend the final year of study working on a large change project which unfolds through the major phases of 1) program planning, 2) program implementation, and 3) program evaluation. The curriculum in the last year revolves around this central project.

Specifically, each student works through an action research cycle which involves each of the seven following steps (See Figure 2):

1. Problem Definition. Students begin by identifying a problem in their community or organization. They review the literature to supplement their own observations and assumptions about the problem. When this step is completed students have formulated a working problem statement which may be modified as they move through the process.

2. Data Collection - Needs Assessment. Each student conducts a needs assessment to investigate and substantiate the problem. Data are generally collected from three sources: A) Existing data from agency records or social indicators relevant to the problem; B) key informants who have special information or expertise concerning the problem; C) a target sample survey of staff, clients or community who experience the problem directly.

3. Data Analysis, Feedback, Recommendations. Needs assessment data are analyzed and interpreted including an assessment of alternative program options based on the findings. The information is feedback to the appropriate systems and persons and the process culminating in a recommendation for program development and change.

4. Action Planning. The action plan is formulated which systematically lays out project goals, objectives, steps, resources, and time frames.

5. Implmentation. The project is implemented as designed or modified as necessary to conform with constraints and realities encountered during the intervention.

6. Data Collection - Monitoring. Monitoring occurs on a formative basis as the program is being implemented. As the project reaches a conclusion it is evaluated summatively, on the basis of efficiency, effectiveness, and impact.

7. Problem Redefinition and program Reformulation. During all phases of implementation, data are systematically collected to assess the change project. These data are utilized to refine the understanding of the problem and to modify the direction of the change project better to ameliorate the problem.

Throughout this cycle, students are utilizing systematic data collection techniques to enhance the quality of their action and intervention. The problem definition and reformulation is at the crux of the process. The literature review supplements the student's own conception of the problem. The needs assessment allows students to substantiate their analysis of the problem and to solicit options for addressing it. Action planning provides a structure, format, and management system for seeing their project from design through execution. The evaluation is directed toward data collection which will enable students to increase effectiveness of their change effort. The collected data are intended to be relevant; easy to collect, analyze, and utilize; and designed toward enhancing the problem solving capacity of the project, rather than meeting strict research requirements.

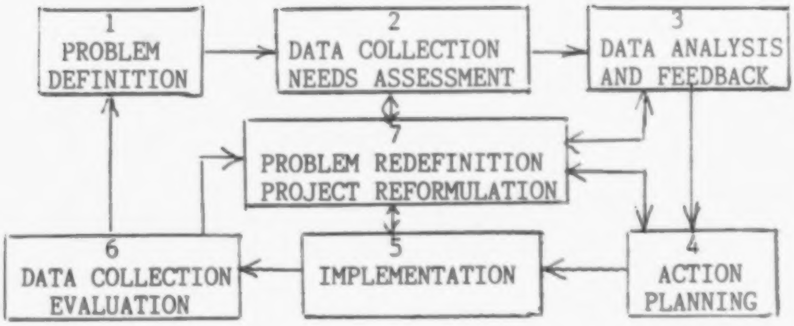
1
PROBLEM
DEFINITION
2
DATA COLLECTION
NEEDS ASSESSMENT
3
DATA ANALYSIS
AND FEEDBACK
7
PROBLEM REDEFINITION
PROJECT REFORMULATION
6
DATA COLLECTION
EVALUATION
5
IMPLEMENTATION
4
ACTION
PLANNING

Figure 2. Action Research Cycle Employed in the Lincoln University Master of Human Services Program

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DEVELOPING GRADUATE NON-TRADITIONAL PROGRAMS: AQUINAS COLLEGE'S INTERDISCIPLINARY GRADUATE PROGRAM IN MANAGEMENT

John G. Dezek

Origins of the Program

Aquinas College's graduate program in management is a logical outgrowth of the College's successful undergraduate evening and weekend non-traditional program for working adults. Begun in 1969, the undergraduate "Continuing Education" program offered majors in business administration, accounting, computer information systems, psychology, and communication arts, taught by full-time and adjunct faculty members. Over the years, the program provided the opportunity for hundreds of men and women to complete their bachelor's degrees entirely in the evenings and on Saturdays. In the process, the College developed a special understanding of the needs and expectations of non-traditional students.

As students graduated from Aquinas through its Continuing Education program, many expressed a desire for graduate studies. Similar reactions from area businesses and organizations who were the employers of many of these students (and who were paying their tuition) led Aquinas to do a market study in order to determine what type of graduate program would best meet the needs of both the students and area employers.

The results indicated that there was a need for graduate studies that would accomplish the following objectives..

1. to prepare students for careers involving problem identification, problem solving, decision making, and managerial capabilities in any kind of organizational setting;
2. to emphasize the necessity of goal-setting and the effective utilization of scarce resources to achieve these goals;
3. to help students understand the physical and social environments in which they live, and to encourage them to participate in them effectively and fruitfully;
4. to stress understanding of human behavior in organizational settings, for much of management must relate to people: understanding them, communicating with them, working with them, and leading them.

After the market research was completed, Aquinas College President Norbert J. Hruby established an Advisory Planning Council to develop a program to meet the above objectives. The council first met in September of 1976, and was comprised of faculty members from the departments of business administration, psychology, and economics, as well as administrators including the Academic Vice President and the Dean of Continuing Education. The initial discussion brought out several concerns: the timetable and the pressures it presented, the approval process including accreditation by the North Central Association, entrance requirements, course content, and a name for the program (and for the degree). Each member of the council was asked to voice his or her thoughts on what the philosophy of the program should be. The Academic Vice President spoke of a desire to follow the tradition of "training a professional in the multidisciplines" in accordance with the prior historical basis of Aquinas College. A faculty member from business administration stressed the need to build a generalist rather than a specialist; another from that department was particularly concerned that the program be innovative -- something that would differentiate Aquinas' program from the other local programs on the master's level in business. A faculty member from the psychology department called for developing a program that had a strong understanding of personal relations; another from that department spoke of his positive prior experiences where there had been a workable combination of business and psychology, and expressed his hope for a program that would teach "peoplemanagement." A member of the economics department asked for "humanistic requirements" so as to be less quantitatively oriented than other programs, and he expressed his hope that the program's content be defined in a broadly behavioral way. The Dean of Continuing Education addressed himself to the areas he hoped would be incorporated into the program: 1) communication between groups within a company, 2) a behavioral approach, and 3) decision-making utilization. These expressions of philosophy would provide the focus for discussions in the coming months, and would be the basis of proposals and compromises by the council members.

The council informed the Academic Assembly's Committee on Studies of its work, and received its endorsement, five days after the first meeting. A timetable was established, with a goal of review by the North Central Association in the spring of 1977.

On September 8, council members reported on their visit to Lake Forest College in Illinois, and their observations about that school's graduate program. In the Lake Forest program, adjunct faculty were used exclusively, and the local businesses and industries who sent employees to the college were said to control the curriculum -- a problem which Aquinas had not experienced in its Continuing Education program. Some of the components of the Lake Forest program would become part of the proposed curriculum of the Aquinas program.

Development of the Program's Curriculum

Much of the advisory committee's meeting time was spent discussing the curriculum that the graduate program should include. It was at the meeting of September 8 that the issue of flexibility first arose. The curriculum needed to be flexible enough to be pursued on a part-time basis and structured to meet the individual's needs, the council members agreed. One said, "The more flexibility that can be built into the program, the more people we will be able to serve." But how to achieve that flexibility was the question. How many, and what, courses should be electives? Should people who have not earned their bachelor's degrees in business administration have fewer electives? Might a given course be a requirement for one student but an elective for another? Discussion was wide-ranging and lacking in consensus.

At a later meeting, on September 16, one of the council members asked for agreement on a procedure for discussion regarding curriculum which would concentrate on specifics.

1. What should the characteristics, qualities, and knowledgeability of the graduate be based on?
   a. what organizations and businesses have told Aquinas
   b. what the market survey indicated
   c. what the council members think, in terms of their own expertise
2. The experiences and content which would presumably provide that type of development for the graduate, and
3. How those experiences or that content ought to be arranged to meet the differences in the students.

The council members agreed to the procedure, and pursued a discussion of the "characteristics of a manager" from the points of view of a local employer (Steelcase, Inc.), the market research, and the council members themselves. What emerged was an emphasis on human relations-oriented traits and communication skills.

Based on the above procedure, various curriculum models were developed and presented for discussion at a later meeting (September 23). It was also determined at that meeting to bring in an outside consultant to react to the various models. One of the members of the psychology department presented his model of four core courses: 1) understanding the organization: Group Dynamics; 2) understanding the people in the organization. Organizational Psychology; 3) understanding the clients. Consumer Psychology; and 4) interaction among the previous three. Professional Problems. The Dean of Continuing Education proceeded to list his suggestions for required courses and those which could be waived upon request, at the discretion of the director of the graduate program. Discussion centered around four of those: Managerial Economics, Managerial Accounting, Quantitative Decision Making, and Organizational Behavior.

At the meeting on October 14, the various curriculum models were compared with those of other area colleges, namely Grand Valley State College and Western Michigan University. It was the general consensus of the council members that there were too many similarities between Aquinas models and the MBA programs of the other colleges; hence, duplication. The Dean of Continuing Education reminded the group that the needs of the business community should be met, and that Aquinas needed to offer something different than the programs being offered by other area colleges, even if it involved doing something risky!

The issue of prerequisites was finally settled on the following basis: work experience (preferably the equivalent of two years of managementlevel professional experience) would be a prerequisite for admission to the program. Based on the market research, it appeared that the primary market would be persons in their late 20's or early 30's who had from five to 10 years of work experience. Therefore, there was a definite stand against prerequisites since each individual would come with different needs to fulfill, depending in part on undergraduate major. Rather than having any prerequisites, some students would be able to waive certain required courses, based on previous undergraduate (or graduate) course work and/or work experience. The goal was to achieve some degree of commonality among the graduates of the Aquinas program.

Two consultants were brought in to react to the program models being developed. The first was Dr. John Turner, industrial psychologist for the Ford Motor Company. The second was Dr. Patrick Martinelli of Loyola Univesity in Baltimore, Maryland. Dr. Turner pointed out that the more psychology that was offered, the less the degree could be called an MBA. When asked what he would call the 'Program that was emerging, Dr. Turner said it could be called a "master s in organizational behavior" or a "master of arts in behavior." Dr. Martinelli pointed out that the market at that time was for the MBA degree, not so much for the "master of administrative science" or the "master of management" degree. "The job market has capitalized on the MBA; it has a better ring in the marketplace," he said. But he also said that the program which was emerging at Aquinas "would be a good 'master of administrative science' degree, not an 'MBA.'" At least one member of the council felt that Aquinas should proceed with developing a behavioral, people-oriented kind of program, but that the degree be called an MBA in order to make it marketable.

On the issue of prerequisites, Dr. Martinelli said that the program at his school, Loyola University, had no prerequisites, and he discouraged Aquinas from adopting any. He said that the courses should be set up so they "do not become discriminators."

On the issue of part-time versus full-time faculty, Dr. Martinelli acknowledged that some part-time faculty members would be necessary, particularly in the early years of the program, but that part-time teachers "give the school second priority," and should therefore be selected carefully and in limited numbers. The director of the program should be full-time, he said.

In its final meeting, on November 18, the Advisory Planning Council adopted the "outline of the Master's Degree in Management," with the name "Master of Management (MM) degree" (selected on a four to two vote, the minority favoring "MBA.") The minutes of the final meeting indicate a concern that "the already overloaded full-time faculty not be called on to spread themselves any more thinly." It was recommended that the policy of staffing the faculty with persons of broad experience, in both academe and the "real world" of business and non-profit organizations, be continued. There was no call for development of a "graduate faculty."

The curriculum proposed, and adopted by the Committee on Studies and the Academic Assembly later that month, was as follows.. "The following nine courses must be completed by the student. Appropriate waiver of courses depending on undergraduate preparation and/or professional experience is possible in designing the student's program. Additional elective courses would be substituted for any courses waived.

Managerial Environment
Statistical and Research Methodology
Managerial Theory and Practice
Accounting for Management
Organizational Psychology
Consumer/Client Behavior
Contemporary Perspectives/Professional Problems
Ethics and Social Responsibility
Organizational Strategy, Policy, and Decision-Making

"Elective courses may be selected according to student interest. The student will elect enough courses to complete a minimum of 39 semester hours of graduate credit.

"As part of the curricular emphasis, communication skills development will be an integral part of every course, including oral and written formation."

Evolution of the Program

The first courses were offered in the Winter Semester of 1976-77, and the degree program was offered beginning in the Fall of 1977, after approval was received from the North Central Association's accrediting team. Over the years, new courses have been introduced under the "Topical Issues" umbrella, and several of those were later incorporated as electives in the program. Though some course titles have changed, the Program remains essentially the same as what was approved in 1976. (The "Contemporary Perspectives/Professional Problems" course has evolved into a "Career Management and Human Development" course, and two concentrations are now offered as optional ways that students may group their electives; they are in Organizational Development and Management Information Systems.)

Since the program began, a total of 428 persons have earned the Master of Management degree. Enrollment in 1985-86 (unduplicated headcount) was 568, a record. The male/female ratio has continued to narrow -- in 1985-86 it was 56 percent male/44 percent female. The average age of new students has remained constant at 32 years. The percentage of students working for businesses and corporations has increased from 63 percent in 1977-78 to 71 percent in 1985-86, but the number of students with business administration or accounting undergraduate majors has declined from 36 percent in 1977-78 to 31 percent in 1985-86. Other undergraduate majors include..

Sciences/math/engineering	18 percent
Social sciences	17 percent
Humanities	10 percent
Health services	9 percent
Education	9 percent
Trade/technical	5 percent

The ratio of full-time to part-time faculty has slowly increased to 53 percent part-time, beyond the desired balance. New part-time faculty are proposed by the program director, with the support of the department most closely related to the course to be taught, to the Graduate Council which oversees the program and advises its administrators (a full-time director and a full-time assistant director, who report to the Academic Vice President).

A Non-Traditional, Interdisciplinary Program

Aquinas College's graduate program in management, leading to the Master of Management degree, is an interdisciplinary approach to organizational leadership, serving both profit-making and non-profit-making organizations. It is designed as a part-time, evening and Saturday program, for Professionals who are established in their careers and who desire development of people-oriented management skills. Courses in the program are taught by full-time and part-time faculty members from the departments of business administration, accounting, psychology, English and communication arts, philosophy, economics, and computer information systems, and each of those departments is represented on the Graduate Council. The current director earned his doctorate in educational administration, and the current assistant director is a former health care professional who is herself an alumna of the program. There is no "graduate faculty" at Aquinas.

A recent survey of the alumni of the program indicated overwhelmingly positive satisfaction with the master of management program. Ninety-nine percent of the students surveyed said they would come to Aquinas again if they had to do it all over again, and 100 percent said they would recommend Aquinas College to someone else! Some of the written comments by alumni, regarding the most important outcome of their experience at Aquinas: "A greater appreciation of life in general, and a more positive self-image. Also, enhanced job opportunities." "I feel my degrees, particularly my Master's, provided a broad educational base that allowed me a variety of alternatives in career paths. I feel like an educated person, not a 'trained' person." "Demonstrating to my four children that you are never too old to achieve something you want."

Conclusion

The success of Aquinas College's graduate program in management may be attributed to the following factors:

1. a sincere determination, from the outset, to offer a program that met the expressed needs of the people of the area served by the College, including businesses and organizations;
2. offering a program that didn't duplicate what was already being offered by other area colleges and universities;
3. removing as many roadblocks as possible (e.g., prerequisites, day classes) that would limit students' access to the graduate program;
4. offering a program that built on the strengths of the College's existing programs: the departments and the faculty (full-time and

part-time) as well as the support services designed for part-time (evening and Saturday) students who are working full time;

5. overseeing the program through a Graduate Council that advises the program administrators and reviews the credentials of new faculty, with the support of the respective academic departments;

6. maintaining flexibility to meet the needs of individual students, but striving to never sacrifice the quality which distinguishes the program and the institution;

7. keeping the program's curriculum vibrant by adding courses that reflect innovations in the field, and reviewing course content and curricular requirements.

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COMPONENTS OF AN EFFECTIVE NON-TRADITIONAL GRADUATE PROGRAM

Margaret D. Mahler

The aim of this paper is to identify components of a successful non-traditional graduate program, using as an example the Master of Arts in Adult and Community Education at Indiana University of Pennsylvania. The Adult and Community Education (ACE) Program is in its eleventh year and is past the initial risk and change process which accompanies the establishment of a non-traditional program in a traditional educational setting. At this point it continues to accommodate working adult students from a wide variety of backgrounds and experiences and provides intensive leadership training with a proportionate balance of academic learning, practical field experience, and individual research. It is intended here to discuss: (1) those elements of the program which, in the opinion of the author, have contributed to its success and (2) program areas which, upon retrospection, were not accorded sufficient attention and are considered to be important.

The words "effective" and ''successful" when used here mean that the non-traditional program has attracted graduate students in good numbers and it meets students' immediate on-the-job needs as well as credential needs. Another point of clarification: this paper is limited to one model, the Adult and Community Education Program at Indiana University of Pennsylvania. The program is housed in a traditional, discipline oriented department in the College of Education. It was begun in 1976 and has 139 graduates. The average age is 36 years; 95% of the students have full time jobs and attend part-time. All classes are offered in the evening.

The first component for discussion is a program philosophy, clearly articulated. Given that the program is different from the usual university offerings and is intended for a different student population, the mission statement, goals and objectives should not be approached in a perfunctory manner. Communication and in-put from the very beginning should include all who are affected, not only the faculty who are directly involved, but also other faculty members in the department and the dean's office. This kind of process, although time consuming, serves several purposes which are important for the future vitality of the program. The feeling of being threatened which generally accompanies the unknown is lessened with open communication. Further, faculty members are more inclined to work together in a spirit of ownership which can provide common ground for understanding and commitment. Also, a well articulated philosophy directly affects program design. Courses can be developed which have integrity, direction, cohesion and relevance. Sequencing courses so that students build on knowledge and experience as they progress through the program becomes an easier matter when the overall program philosophy is well conceived.

Adult students, more than their younger counterparts, are sensitive to the content of individual courses which they must take to arrive at a degree. Not only do they have an initial concern about the time and money which they must expend, but as experienced consumers they are also conscious of quality and the lack of it. The best way to attract serious students is to offer a serious and well integrated program.

The Adult and Community Education Program at IUP was established with the belief that the special needs of non-traditional students could be met in a specially designed academic program. The courses which were developed are sequenced in a manner which allows the returning adult student to progress, with comfort and confidence, from less difficult to more difficult material, course by course. Each course is designed to include both theory and practice: theory being presented first and followed by opportunities for students from a wide variety of backgrounds to apply the theory to their fields. In this way, theory is subjected to a variety of interpretations and applications, the sharing of which benefits the student far beyond that which could be provided by a text book or a professor whose experience is generally limited to a single field. Specific projects which couple theory with immediate practice are included in the syllabus of each course and encourage independence, self-directed learning, responsibility for learning for self and others, guided activities outside of the classroom, sharing information and experiences -- all hallmarks of the andragogical process. It must be noted here that such an approach requires special considaration of the students' time in light of their many roles in addition to being students. When lengthy research means hours in the library, when team members need to meet to plan a class presentation, and when activities outside the classroom mean hours in the field, accommodations need to be made. In some instances, the time is allowed during class and in other instances a "free" evening may be scheduled.

The Adult and Community Education Program has built within its curriculum a strong emphasis in two areas: research skills and communication skills. There are three courses in the program which have research as a primary focus. Although the thesis is optional, each student writes the five chapters of a full research paper as the final course: either the thesis or its alternative (AC645 Practical Research in Adult and Community Education). The focus on research affords students an opportunity to (1) investigate topics which are job related and share findings on the job; (2) engage in problem solving and disciplined writing and (3) present findings to fellow students and to publish. The second program emphasis is on communication skills, verbal and written. Each ACE course requires students to be involved in individual presentations, panel discussions, or group tasks where they must express their ideas verbally to others. The "writing across the curriculum" approach is incorporated in the ACE Program. Not only are students required to produce written work in each course, but attention is also given to different kinds of writing: the essay in final exams, research papers, critiques, reports, and outlines. The student has many opportunities while pursuing the degree to be aware of his writing strengths and to seek help with the weaknesses. The belief here is that at the heart of a graduate program is thinking and thought, and that good thought can be diminished if it is not communicated well. These areas of emphasis -- research and oral and written communication -- are discussed at the time of interview so that for the student they become a matter of expectation and acceptance from the beginning.

The ACE Program has two unique features: its high level of individualization and its ability to accommodate students from a wide variety of backgrounds. The course design described earlier where theory is coupled with practice accounts for this uniqueness. Students from schools, hospitals, social agencies, churches, community organizations, and business and industry sit side by side learning and applying the knowledge to their respective fields. This individualized learning is generally directed to the student's job situation. A strong component in the program which is also job related is the 6 credit Internship. Students seeking career changes not only research potential job areas but also engage in an on-site project. In several instances the internship has led to a job offer.

If the reader will indulge the author, there are two points which do not fit into the general theme of program components but which the author feels have contributed to the success of the ACE Program. The first is socialization. The program encourages socialization in many ways: comfortable psychological climate has produced a spirit of camaraderie in class and lasting friendships outside of class., coffee is available at the beginning of class; a class list including names, addresses and phone numbers is distributed in each class,. at the close of each semester classes meet for dinner at a local restaurant; and reunion picnics are held in the fall periodically. The social aspect seems to be an incidental benefit which is valued highly by ACE students. The second point is the need to establish non-traditional indicators of potential for reviewing applicants for the program. The returning adult student is often a practitioner who seeks credentials for advancement in his present position or seeks re-training for another position in the field or for a career change. This person is atypical, one who has been removed from the student role for many years and who does not test well at this point. Often traditional criteria for admission would tend to disqualify adult applicants who indeed have the potential for successful completion of a program. These candidates bring to graduate study other strengths and competencies that have often been overlooked in traditional procedures which screen out rather than screen in. Clearly, non-traditional indicators of potential need to be established and these criteria should be viewed as qualifiers rather than disqualifiers.

In conclusion, few need to be convinced that the returning adult student is part of the redefinition of higher education. What seems to be more difficult is persuading educators that a new set of attitudes and practices among administrators and faculty must replace prevailing traditional policies and procedures in order to attract, accommodate and retain the new student population. It is hoped that the discussion in this paper of specific components of a non-traditional graduate program may serve to generate ideas which can succeed in other programs in traditional educational settings.

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CREATIVE PROGRAMMING IN HUMAN RESOURCES MANAGEMENT

Michael E. Quigley

Introduction

The last ten years have witnessed unprecedented economic and social growth in Southern New Hampshire, particularly in the greater Nashua area, where Rivier College is located. Simply stated, the post-industrial age has arrived. Knowledge-based, high technology and service enterprises are all highly visible components of the transformation of the region from older, smokestack industries.

It is now recognized that this economic transformation could not have taken place without a solid foundation of collaboration between the business community and higher education, and as the pace of economic change continues, the business-academic partnership will be expanded to assist businesses in more effectively dealing with the myriad of technical, behavioral and conceptual issues facing them.

For the academic community, the future calls for a proactive managerial style in which administrators and faculty demonstrate that they are both listening to the needs of the business community and are responsive in meeting those needs. It is in light of this philosophy that the Graduate School at Rivier College undertook the development of a Master of Science (M.S.) degree in Human Resources Management in collaboration with businesses in the region.

Rivier College is a relatively small (2300 students) liberal arts College, located in a highly competitive educational environment fifty miles north of Boston. What many people might regard as a time of survival for the small college, we saw as a window of opportunity. Where many larger, traditional universities and colleges are set in their ways, and where change involves moving a cumbersome bureaucracy where it does not necessarily wish to go, the small college is able to move energetically in achieving new goals.

Given the fact that the College already possesses a strong M.B.A. degree program, as well as healthy liberal arts traditions, the opportunity to develop a new program in Human Resources Management was one which enabled the institution to build on its own strengths. A proactive attitude which first of all led us to ask what were the needs of the business community in this area, and then sought to fashion a program based on our own organizational strengths, was a key ingredient leading to the successful implementation of the program.

At the same time, the population of adult students which is served by programs in the Graduate School is one which works during the day and attends school in the evening and on week-ends. The program had to be structured in such a way that the needs and the convenience of the students and their organizations were given primary consideration, not the desires and convenience of the organization providing the service. Attitudes were of critical importance in developing the model for the program. They were indicative of the new leadership style which is coming into prominence in higher education, and which, in many respects, duplicates the principles of management of which Peters and Waterman speak in their book In Search of Excellence.[1] This leadership is biased towards action; it requires entrepreneurship, is focused on essential business, maintains simplicity of form, and eliminates unnecessary overlays of bureaucracy.

Mechanics of Developing the Program

As new needs arise in organizations, and as new kinds of knowledge are demanded, academic leaders must have a knowledge of the marketplace in some depth. These leaders must be able to listen, and listen well, to what community organizations are telling them. Secondly, representatives of new markets for educational services, in this case, a new program in Human Resources Management, must be invited to join with academic leaders in formulating and designing the kind of program which will meet organizational needs. This was done by inviting senior Human Resource managers from a variety of companies (Digital Equipment Corporation, Sanders Associates, Wang Laboratories, Norden Systems,Indian Head National Bank, etc) to form a 'focus-group' for the express purpose of brainstorming for the necessary areas of content in the future program. Meeting once a week for several weeks at the College, this focus group, whose time, incidentally, was willingly donated by the companies concerned, developed into a 'skunkworks' for the new program. In this respect, the resulting proposal was a direct reflection of the greatest needs of the region in which the School is located. Needless to say, other programs in other regions will reflect different needs, respond to different requirements, and hence take on a somewhat different character.

The resulting proposal for the HRM degree was then sent to a wider and more representative group of businesses in the community for further input and change. It immediately became apparent that the needs of the larger, high technology companies, were more extensive that those of smaller organizations, and that companies dealing with government agencies differed in their needs from companies with solely commercial activities. More flexibility had to be built into the program. The focus-group became more aware of these problems only when it too became a listening group, and when the team-members themselves began talking to other managers both in their own companies and elsewhere. Even before the program was implemented, the marketing and advertising was going on apace, and the Graduate Office began receiving calls of inquiry about the new program from would-be students.

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[1] Thomas J. Peters & Robert H. Waterman, In Search of Excellence, Warner Books, 1982.

As a result of input from many sources, flexibility was built into the program. Required courses were kept at a minimum. Students would be allowed to structure a program which most closely met their personal career goals and the needs of the organization for which they worked. For those working for smaller companies, and who had no need for a full degree program, a graduate certificate in Human Resources Management was structured into the program. This did not involve trying to be all things to all people. On the contrary, there were needs of the knowledge-based companies which were quite generic in character. These could be incorporated into the program. Because we were addressing a knowledge-based environment, where the needs were primarily those of an educated workforce, and not those of a semi-skilled, unskilled or labor union environment, certain elements could be eliminated from the program. The key question was whether the program met the real-life needs of the companies which we sought to serve.

Long before the new program could be implemented, a qualified teaching faculty had to be assembled, for the program would only be as good as the faculty who conducted it. Firstly, because the program was designed by a focus-group consisting of representatives of the academic and business world, managers who formed the team were, in many cases, either involved in teaching in one or another capacity, or they had been members of the teaching profession before moving into business. Both from the focus group and from their associates, a nucleus of experts in various areas was assembled. Other members of the group, representing the college, were sufficiently motivated to develop new courses for the new program. The focus group had the unexpected result of aiding our own faculty development.

The result was that in a mix of full-time faculty and part-time adjunct instructors, we were able to generate a blend of theoretical and practical experience. Even those adjunct faculty coming to the program from industry were now involved in the program in a manner which went far beyond the normal level of interest one finds in part-time faculty members. This part-time faculty was asked to meet the academic criteria for teaching at the College. Not only must they have practical experience in the field; they must also have strong academic credentials, possess at least a master's degree in a related field, and be able to teach in a manner suitable to adult learners.

From the inception of the program, as indeed for every course taught in the Graduate School, the students would have the opportunity to evaluate every course taught in the program. A strict quality control was maintained over the program from its beginning. Faculty were expected to have a detailed syllabus the first night of class, listing all examinations,research projects, reading requirements, etc. Regular meetings take place within the group for the purpose of continuously monitoring and evaluating the program. As a result, new ideas are generated, new techniques are developed, skills are honed, and motivation sustained.

This is the crux of academic leadership. It is based on ability to bring together and motivate people from diverse backgrounds, and have them act in concert in meeting new needs in our society. It requires vision, a commitment to excellence in programming and in demands for performance, as well as the willingness to innovate. It is precisely in this kind of cooperation that the interraction between business and the College is happening to the advantage of all parties.

Content of the Program.

The field of Human Resources Management is a relatively new discipline in the business world. The more traditional function associated with the role of the Personnel Office has been transformed as the new industrial age has come into existence. Before we consider the actual academic content of the program, it is well to consider some of the more important elements of this transformation which is taking place in our economic system, and how these changes are having their impact on the field of Human Resources Management.

The transformation to which I refer has perhaps best been expressed by John Naisbitt,and Patricia Aburdene in their recent book Re-Inventing the Corporation.[2] The authors point out that old categories will no longer work in the new age. Where finance was the basis of the older, industrial society,information is the basis of the new age. And this information can only be derived from the knowledge and creativity of people. It is now a matter of people and profits, and not simply profit. Educated, creative women and men are now recognized as the capital of the corporation. Previously, financial strength was an exclusive consideration, and employees and their labor a commodity.

Corporations in the new age will of necessity be compelled to generate new structures able to accomodate both the talents and the expectations of the new sophisticated workforce. Old hierarchical structures, for example, will give way to networking. There will be intense competition for the brightest and the best workers. The corporation will have to contend with career paths for these workers. It will have to be both creative and competitive in the matter of benefits, for one characteristic of the new workforce is that it has high expectations of satisfaction and human wellbeing.

In a word, the re-invented corporation is involved in 'growing people' as well as making a profit, and in this novel undertaking for the business organization, the responsibility will fall to the function of Human Resources Management. 'Growing people' involves not only keeping brain-power where it is most effective in the organization, but also rewarding it appropriately. 'Growing people' involves stimulating innovativeness through flexible structures, self-management, team effort and intrapreneurship.

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[2] John Naisbitt and Patricia Aburdene, Re-Inventing the Corporation, Warner Books, 1985.

As Naisbitt and Aburdene point out, the focus will be on the whole person, including family, health, education, work scheduling and leisure. Much of this agenda is, of course, quite a new function for many businesses, but it is one with which they will be compelled to contend out of economic necessity, for in the new industrial age, mobility and access to individual economic activity is a relatively easy matter for the bright workers. They will leave a corporation which fails to live up to their expectations and start their own venture. Given this new thrust in the 'post-industrial society', it becomes clear as to what should be the content and the issues covered in a program in Human Resources Management.

Because the field is a relatively new one, the program content was structured in such a way that a person moving from an altogether different field into HRM could make the transition. Hence, the program begins by covering the foundations of (1) Management Concepts and Practices, (2) Accounting Concepts and Practices, (3) Economic Analysis. The Core of the Program consists of the following courses:

Introduction to Human Resources Management
Covers different industries, development of the field, the place of people in the organization.
Introduction to Compensation and Benefits.
Covers executive, non-executive remuneration, pensions, sales and international compensation, government regulations; legal implications of a compensation program.
Staffing and Employment.
Interviewing, communication theory, testing, job definition, manpower forecasting, EEO requirements, data storage, legal aspects.
Employee Relations.
Preparation of the manager to deal with employee issues: unsatisfactory performance, alcoholism, drug abuse etc.
Organizational Development.
Analysis of theories and concepts of general management. Emphasis on the dynamic environment, systematic diagnosis.
Group Dynamics.
The dynamics of group processes. Participants become a learning team, capable of self-criticism.
Productivity Management
Organizational culture, motivation, incentive programs, job design,quality circles, measurement issues, quality of work-life.
Labor Relations
History, theory, law of labor relations. Negotiating, job measurement, incentive programs, NLRB, grievance handling.
Human Resource Development and Training.
Theories of learning, training techniques and technologies, use of media, presentation styles.

Human Resource Planning and Strategy.
Integration of HRM into strategic planning. Methods of recruiting, selecting, and developing employees, compensation systems, right number of people in the right place, at the right time.
Advanced Compensation and Benefits.
Plan design and administration issues related to benefit and capital accumulation (life, health, contribution plans and other benefits.
Corporate Strategy.
Culminating course, replacing comprehensive examinations, defining, analyzing and resolving complex strategic problems. Topics include perspective of the total enterprise, concept of strategy, strategic environment, strategic assessment, social responsibility and strategy.
Special Directed Study
Research project, requiring authorization of organization supervisor as well as academic advisor.
Along with the above core courses, students can select elective courses in such areas as:
Organizational Development and Change, Social Service and Industry, Ethical Issues in Business, Interpersonal Communications.

Summary

This outline of the program in HRM cannot begin to provide the flavor of learning which is derived from a hands-on, problem-solving environment in which the learning takes place. Andragogy, not pedagogy, is the chief characteristic of successful teaching in this program.

In May, 1986, the School graduated its first class of M.S. degree recipients. Within one month, they will be asked to provide the School with an 'exit evaluation', in which they will have not only the opportunity to express their views on the significance of the program, but also, as practitioners, to suggest ways in which the focus-group can improve the program in light of changes taking place in their organizations. A new branch of the network will thus be established. (As in the case of older programs, another 'exit evaluation' will be sent to students three years after receiving their degree. Perspectives change)

Currently, the HRM degree and certificate programs cater to approximately fifty students. As the economic growth of the region unfolds, the program will continue to respond effectively because the mechanism is in place to do so. The organizational structure of the Graduate School is able to take advantage of what is now a society of lifelong learning.

The model of organization which developed with the HRM program has been utilized successfully more recently in developing new programs in Mathematics, Computer Science, Computer Information Systems, and is currently being developed for programs in the Graduate Education Department.

In what ways can the model be strengthened ? Communication between the School and business organizations can always be enhanced. Businesses can benefit from individuals being 'loaned' to the college for an 'industrial sabbatical' of a semester. Academics wishing to retrain and gain new skills as well as integrate current skills with new situations could benefit from a summer 'internship' in an industrial setting. Full-tine faculty members remain a hidden resource for many organizations.

The HRM program is obviously one which is not capital equipment intensive. In the information society, it is clearly a program which is knowledge-intensive and functions on the basis of people seeking to improve the social environment of work. It is a program which can incorporate many of the social sciences and humanities. In this new age, people have an opportunity never previously experienced in our capitalist society, to develop a quality of life which is consonant with their own human dignity and aspirations. Programs like the one developed at Rivier College are able to make a valuable contribution in achieving this democratic goal.

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THE CAREER OPPORTUNITIES INSTITUTE: A CAREER DEVELOPMENT PROGRAM FOR PH.D.s IN THE ARTS AND SCIENCES

Joel Zimbelman

Career Prospects for Ph.D.s in the 1980's

Leaders in government, the not-for-profit sector, and business express concern about the quality of the pool of talent from which they must draw administrators, managers, writers, educators, and strategic planners. The narrow focus of a number of graduate and undergraduate business and administration programs has been criticized by those who recognize the need for visionary, creative, eclectic, and interdisciplinary problem-solving. At the same time, declining enrollments at post-secondary institutions, and the fact that in some disciplines more individuals are pursuing Ph.D.s than there are teaching jobs available is raising questions about the importance of advanced humanities and social science graduate education to our society.

Fortunately, many individuals in business, government, and the academy are beginning to recognize that Ph.D.s in the humanities and social sciences possess a range of formal knowledge and substantive abilities that are required in a broad range of careers. They believe that their ought to be a recognition of the viability and legitimacy of Ph.D. career transitions- moves by these well educated individuals to new career paths that make use of the strengths that they have developed. Rather than interpret a colleague's desire to seek meaningful employement outside of the academy as a failure to fulfill a commitment mandate, or vocational calling, these individuals suggest that the ability to move into nonacademic careers is a legitimation of the liberal vision that grounds higher education. Encouraging and permitting Ph.D.s to move freely from their academic disciplines to careers in other sectors of society. will advance the long-term interests of the academy, these other sectors, and the individuals involved.

The Career Opportunities Institute at the University of Virginia was developed to meet the needs of the growing population of Ph.D.s. who, for one reason or another, find it desirable to explore and assess possible career transitions into business, government, the not-for-profit sector, and academic administration. Its function is grounded in the belief that graduate education in the arts and sciences is an appropriate and strong preparation for a range of careers. Ph.D.s as a group are well versed at intellectual inquiry, abstract logical thinking, critical analysis, and the process of reason-giving and justification. They possess a strong understanding of cause and effect relationships. Their appreciation of history, the human condition, and the processes that sustain society permit them to make important contributions in a range of careers. They are expert written and (hopefully) oral communicators. They are fast learners who understand the way that divergent fields of knowledge are related. Their discipline at research, and the fact that they have demonstrated closure on a major project are a strength demanded in many careers. Our contention in cataloging these strengths is that Ph.D.s possess substantive and formal skills and abilities that are at a premium in a range of job settings.

Ihe Program at the Universitv of Virginia

A coherent philosophy of liberal education undergirds the interdisciplinary structure of the program.

First, our program of career development emphasizes broad career exploration. Self-assessment, career research, informational interviewing, networking, and resume and interview preparation reflect the range of activities we encourage. Our approach is nonpaternalistic: We draw to our program participants who are both committed to transitions, and those who are simply evaluating possibilities. However, once persons have chosen specific career paths, the Institute equips them with the tools required to make a transition into that field and ultimately succeed in that career. We prepare individuals both for their first transition and also for the inevitable job and career transitions that lie in the future. We emphasize the importance of formal abilities to a successful career rather than focusing on ways that participants can apply only the substantive knowlege developed in the course of graduate study and teaching.

Second, the Institute's business component introduces participants to the fundamentals of management and administration, and includes introductory work in accounting, finance, business management, information systems, marketing, business policy, and business ethics.. We highlight the functional similarities of management and administration in business, government, the not-for-profit sector, and academic administration.

Finally, we invite in a number of luncheon speakers to address our participants on the particulars of transitions into specific sectors of the economy, career paths in specific industries, and careers in specific companies and organizations. A two-day field trip to Washington D.C. permits participants to conduct intensive informational interviews. Both chief executive officers and former participants join us for presentations, discussions, networking sessions, informational interviewing, and actual job interviews.

Demographics, Placement Statistics, and Transition Velocity

Table 1 presents some demographics of our participants. While the Institute has always drawn more men than women, we expect to see a growing number of women and older participants as the constitution of graduate programs and faculties change, and as many older Ph.D.s begin to consider transitions. In its 7 years, the Institute has assisted over 250 men and women from 65 institutions of higher learning and 40 areas of study.

Table 2 indicates the career paths assumed by our participants. Financial services, communications, and various types of administration have been among the most popular career moves. A number of individuals decide each year to postpone their transition for a number of months following the summer program. Others decide to remain in academic teaching and research positions for the forseeable future, but in many cases only after having been offered increased salaries, responsibilities, or additional consulting options. While this table fails to indicate the functional tasks that participants perform in these economic sectors, surveys have confirmed that the range of career options is not closely linked to the sector chosen. A given industry or field need not limit appreciably the choices of specific functional career.

Table 3 offers a sample of the types of positions that participants have assumed in the past 7 years. A number of those in our earlier institutes have assumed middle and upper level management positions that offer excellent potential for future advancement and greater responsibility.

The success of our participants in assuming careers should not mask the fact that the transition for some can be a long and painful process. Though close to 65% of our participants eventually make career transitions, it takes up to 15 months for some participants to land their first job. While a number of these individuals are completing teaching contracts during the 11 months following the Institute, the process is one that demands concentration, commitment, hard work, and money. Though emotionally draining and demoralizing for some, surveys from our participants who have made transitions indicate that, without exception, they are happier in their present careers than they were during the last years of their graduate work or teaching. The key to success is the recognition that one is ready for a change, and that steps must be taken to move on with one's professional life.

Establishing a Career Development Program for Your Institution

Developing a competent and a functional program of career development aimed at established academics requires both an interdisciplinary approach to education and the application of the skills of a psychologist, counselor, entrepreneur, and organizational expert. Such a program need not be created *ex nihilo*, however, and the prospective administrator or program designer can borrow from existing programs and established approaches in developing a program that educates and fulfills its pragmatic task.

Presently, only New York University and the University of Virginia provide national programs of this scope. We believe that the national constitution of a participant pool is a strength. But we recognize as well the importance of establishing similar programs at regional colleges and universities that can meet the growing needs of their graduate students and faculty. For administrators, career development specialists, faculty, and counselors interested in developing a program of this sort, we offer the following suggestions:

1) Involve high-level administrators at your institution. In many ways, advancing the legitimacy of career transitions for academics is a subversive activity, and is not always supported by departments or faculty. The support of academic administrators and chairpersons is mandatory for long-term viability, no matter how modest your attempts in this area.

2) Involve outside consultants at a number of points in your project. The credibility of a department or office of career planning is strained in the eyes of many disgruntled graduate students or demoralized faculty who need to draw on your resources. The use of consultants and outsiders adds legitimacy to a program that might otherwise be suspect.

3) Be prepared to commit financially to the program. Maintaining such a program, even on a modest scale can cost anywhere from $30 to $60 thousand per year, depending on professional salaries and the cooperation of already existing career development facilities. Consortia efforts can cut some costs, but as universities debate the future of faculty retrenchment and the realities of graduate student recruitment based on calculations of education expenses in the context of career earnings and potential, it might be best to look on a program like this as the cost of being in the education business today.

In summary, we suggest that graduate education is essential to the vitality and survival of both institutions of higher learning and the nation as a whole. Academic communities must realize that individuals who commit to the process of a graduate degree are able to pursue a range of career possibilities, and make valuable contributions to areas not always directly related to the field of their graduate work.

Table 1

Population and Distribution of Age

Career Opportunities Institute Participants
1980-1985

Year	Number	Men(%)	Women(%)	Mean Age	Age Span
1980	38	26(68)	12(32)	41	32-50
1981	38	27(71)	11(29)	36.8	26-54
1982	45	33(73)	12(27)	37.5	29-62
1983	50	40(80)	10(20)	37.8	27-51
1984	24	15(63)	9(37)	37	28-46
1985	33	27(82)	6(18)	37	30-58
1986	( )	( )	( )	( )	( )

TABLE 2

Career Opportunities Institute
Placement Statistics

Industry/Field	1980	1981	1982	1983	1984	1985	1986	Total
Banking	1	1	2	0	0	0		4
Stock Brokerage	4	3	2	3	1	2		15
Insurance	0	1	0	0	0	0		1
Accounting (including MIS consulting)	1	0	0	0	1	1		3
Manufacturing	0	2	2	2	0	0		6
Communications (including information systems)	4	2	2	0	3	1		12
Advertising/Marketing Res.	0	2	1	1	0	0		4
Retailing	0	1	1	1	0	1		5
Lodging & Service Indust.	0	0	1	3	0	0		4
Public Relations	0	0	0	1	1	0		2
Management Consulting	4	1	0	1	1	0		7
Non-academic Research	0	2	1	0	0	0		3
Publishing	1	0	0	0	1	0		2
Health Care	0	0	0	1	0	1		2
Administration:Government	0	1	2	2	0	0		5
Administration:Non-profit	3	1	1	0	0	3		8
Administration:Academic	1	1	4	2	2	1		11
Gov't service/other than administrative	1	1	3	0	1	0		6
Utilities	1	0	0	0	0	0		1
Construction	1	0	0	0	0	0		1
Transportation	0	0	0	0	0	0		0
Energy	1	1	0	0	0	5		5
Academic Research/Teaching	2	4	7	6	7	15		41
Unemployed	0	0	1	1	0	2		4
Other	1	0	2	1	0	0		4
Unknown	13	15	14	23	6	4		75
Total Responses	26	23	28	26	18			121
TOTAL PARTICIPANTS	39	38	42	49	24	33		225

TABLE 3

STATUS OF PAST PARTICIPANTS

Career Opportunities Institute
1980-85

The following list indicates the types of positions past participants have accepted:

Research Assistant; Office of State Budget Management Raleigh, NC

Account Executive; E.F Hutton Washington DC

Academic Programs Coordinator; College of William and Mary, Williamsburg, VA

Information Developer; IBM Corporation, Poughkeepsie, NY

Procedures Analyst; Daniel International, Greenville, SC

Training Specialist; PEPCO, Washington, DC

Organizational Planner; SOHIO, Cleveland, OH

Technical Writer; IBM Corporation, Durham, NC

Music Critic; The Orlando Sentinel, Orlando, FL

Policy Analyst; Environmental Protection Agency, Washington, DC

Foreign Service Officer; Department of State, Washington, DC

Assistant Provost; University of Virginia, Charlottesville, VA

Sales Representative; Wachovia Bank & Trust Company, Winston-Salem, NC

Documentation Specialist; Marriott Inn Corporation, Washington, DC

Chief Researcher; Morgan-Newman Associates, Washington, DC

Systems Engineer; General Electric, Charlottesville, VA

Research Analyst; O'Connor & Associates, Chicago, IL

Management Trainee; Hecht's Company, Washington, DC

Project Manager-Marketing; Colorado Time Systems, Denver, CO

Technical Transfer Assistant; Office of Cooperative Research, Yale University

Associate Account Executive; C&P Telephone of Virginia, Arlington, VA

Education Coordinator; O'Connor & Associates, Chicago, IL

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A NON-TRADITIONAL COURSE FOR NON-TRADITIONAL LEARNERS

Marie Brinkman

Teaching non-traditional learners is like world travel: it takes you down to size. No one can face twenty or twenty-five adult men and women for three hours every Wednesday night--men and women who have come from a full day's work, who have families at home "making do" for themselves, who may be Middle-Easterners and Orientals still struggling with English idiom--no one can teach a group like that weekly and stay proud.

Further, when the course includes poetry, a classical drama, and Newman's Discourses on Liberal Knowledge--not to say writing every week--the challenge to teacher and student is continuous. They are paying too much, thase students: out of paycheck, savings, family- and life-time to be less than serious about their education. And their needs and reasons for finishing college are such that a teacher feels compelled to try to meet them. Any reduction, one knows as well, of coursc content to less than collegelevel learning demeans students and teacher alike.

When the students have come from high schools and community colleges all over the city--or from schools in the South, on the coast, in midwestern small towns, foreign countries--their preparation for college is as diverse as their family histories. In the face of such obstacles--read "challenge" if you will--it's teamwork or die.

I teach a course called Language and Literature, En310, in the Evening/Weekend "2 Plus Two" program on the Donnelly College campus in Kansas City, Kansas. My home campus is Saint Mary, a four-year liberal arts college in Leavenworth, Kansas, some thirty miles from Donnelly, a two-year college serving an inner-city population of Black, Hispanic, and third-year generation Eastern European immigrant families, now enrichad by a large complement of Iranians, Vietnamese, Koreans, and Cambodians.

Saint Mary established the degree-completion program we call "2 Plus Two" eight years ago, to enable graduates of community colleges to obtain their baccalaureate degree while staying at home and at work in Kansas City. Fulltime faculty from Saint Mary commute to teach in thc program; supplementary adjunct faculty are hired by the College. Since its inception, graduates from the program have tripled in number.

At about the same time as Saint Mary was initiating its Evening/Weekend programs for non-traditional students, at Donnelly and on the home campus, the College took a significant step forward in the renewal of its general education curriculum, with the support of the National Endowment for the Humanities. We piloted two segments of a Common Core of general education studies, one of them a Freshman Seminar, two semesters of literature and rhetoric, taught with these objectives: to enable the student --to read literary texts with understanding

o to improve writing skills, with directed practice

- to attend to the uses of language and its effects
- to learn the art of story-telling in its various forms
- to examine values reflected in selected classics of Western literature
- to reflect on the purposes and meaning of liberal education and undertake direction of one's own learning
- to gain, from reading, writing, and discussion, a degree of self knowledge

We usually find that tradition-age students' objectives in taking the course comprehend much less than this, but do not substantially depart from the goals as we understand them. It should be added that today students want to see some relationship between their learning and career goals, between their knowledge and demands of adult life. We point to such relationships, having experienced them and seen them dramatized in graduates' lives, with assignments, in discussion, through texts themselves. The texts studied in this Freshman Seminar are selected autobio graphical essays, largely contemporary; The Odyssey, selected American short stories, a novel--presently Pride and Prejudice; selected poems, Newman's four Discourses on Liberal Knowledge, Miller's "The Crucible;" and a work each semester of the instructor's choosing. I use "Antigone."

Five years ago, the Director of the "2 Plus Two" program at Donnelly asked that we adapt this Freshman Seminar for non-traditional learners in the Evening/Weekend programs. He wanted the distinctive character of an education from Saint Mary to mark every part of those programs, even though--or because--the students' backgrounds in general education were so various. It would take much more than a course to leave such a mark, but we depend on the quality of teaching in all programs--general education and majors, on stated mission and demonstrated purposes of the College, on working relationships between faculty and students, students and staff, as well, to characterize a degree from Saint Mary.

The adapted entry course, Language and Literature, En310, was to be the formal curricular stamp of character. Its contexts are worth mentioning. The largest of these is a set of College Goals, adopted in 1974, several of which have to do with learning objectives in the disciplines of knowledge, and others with the developmant of language and thinking skills; the application of knowledge to goals of self-understanding, social conscience, and vocation; and the integration of knowledge, faith, and values.

The immediate context of the course is the Common Core of general studies which include, on the home campus, the Freshman Seminar, a Colloquium in Human Communities, a course in Fine Arts, and an Integrative Seminar, a "capstone" experience before graduation. The first and last of these are taught regularly in the Evening/Weekend programs at Donnelly, though not yet so regularly on campus. The other two segments of the Core are taught in experimentl forms or intermittent fashion. We are in the process of adapting more of the segments for non-traditional programs.

The Core's common objectives are instructive for gauging the purposes and direction of these courses; they include areas of integrative knowledge and intellectual skills that we believe are characteristic of learning in the humanities. These objectives concern, first

- understanding of development of human culture
- perception of identifying similarities and differences among the world's cultures
- understanding of people as source of ideas, arts, conviction, belief
- relationship of knowledge to commitment in choice of values
- application of knowledge to concrete human problems;

and secondly

- skills of reading in depth, with understanding
- skills of expression of ideas in articulate speech and effective writing
- skills of analyzing argument
- skills of analyzing evidence in solution of a problem, or development of a thesis
- skills of evaluating an idea, issue, or art form

The Language/Lit course, like the Freshman Seminar, aims at certain of these objectives in its own ways. The original course was designed in 1979; the Core and this statement of its objectives was developed with the support of an Implementation grant from NEH these past three years. The history of Language & Literature, as a requirement for all non-traditional students entering Saint Mary's degree programs, begins in 1983.

Since then we have taught some 250 students in four different environments: the inner-city campus, the home campus Evening session, the Weekend schedule--when evaluating students told us not to do it there again, and the campus daytime program. Directors of the state prison education program, for which we hold the contract, have asked us to offer it for their students; their audience for the course is so varied, with only a handful moving toward a four-year degree to be completed after release, that we have not thought it the best course for that program.

A typical syllabus of Language & Literature records certain adaptations of the Freshman Seminar objectives listed above, and additions to both courses of a library research project and, at the end of each, the administration of the College-wide Writing Proficiency examination.

The texts for Language & Literature vary from those of the Freshman Seminar in the substitution of a classical drama, "Antigone," for the epic; in the use of fewer essays and stories; and in the substitution of Malamud's The Assistant for Pride and Prejudice. Writing assignments for both courses include the journal, kept throughout the course; the personal narrative, linked to study of autobiography; two expository essays, with outline developed from a thesis, for units on the novel and the discourse; and the precis. Other assignments vary from teacher to teacher, from traditional to non-traditional audience. The lack of time for individual conference on papers--common to our work with students in the Day program--is a "built-in" disadvantage of teaching and study in Evening classes. Some teachers compensate--only partially--with extensive commentary on papers to aid re-writing. The College, with funding from FIPSE, is developing a Peer Tutoring program to assist students with special needs in both general education and major courses. Its usefulness for Language & Literature remains to be seen.

Perhaps the strictest test for students of En310 is the Unit on the Discourse, with the small but difficult text called Uses of Knowledge Leo Ward's edition of Newman's four discourses on knowledge. No college teacher would ordinarily use it in a course for non-traditional students; no consultant in non-traditional teaching would, I suspect, recommend it. Only two or three colleges and universities in the country, to my knowledge, teach the discourses to freshmen (I would like to hear from others that do so). About eight members of the faculty of Saint Mary's English department have taught the discourses to freshman groups for some thirty years. Only with the implementation of the Common Core has it been reintroduced as required reading for all freshmen- with results that are the more astonishing with non-traditional students.

Three of us presently teach the Language/Lit course to students at Donnelly and in the Evening and Day programs on campus. We receive in student evaluations repeatedly so much the same kinds of responses to the unit on liberal education that one teacher's experience may be cited as representative. In my class at Donnelly last fall, two students wrote brief expectations of the course that are relevant to their later study of Newman. I asked them to tell me also what they were bringing to the course.

One said, "I want to improve on grammar and sentence structure to write paragraphs and short stories without errors . . . . I bring willing/ness/ to improve and grow . . . ."

The other wrote: "I hope this course broadens my literary horizons . . . Perhaps I can wean myself from the bestseller list and become hooked on more substantial fare . . . . I bring a love of words to this class. Both as a reader and writer, I've always enjoyed the turn of phrase or the significant rhyme."

The journals and essays of these two men reflected more than these ambitious goals: they revealed minds at work on whatever they were asked to do, and it wasn't always a welcome task. Their reflections on their liberal education, written after reading both text and collateral essays, after conversation about learning with someone outside class, after much discussion and modelling of tasks assigned, were valuable to them and to me. The first man wrote:

> Learning to read, write and speak is the most useful and valued part of my education, but learning how to judge, and to communicate with people is the safest.

His argument indicated that by "safety" he meant necessary for human welfare, and included an example of a conflict between the citizens of a community and a chemical company disposing of waste. His conclusion read:

> There is no reason to limit our studies to specialized vocations, but we need to pursue knowledge with openess in a humane manner. We must free our minds, and learn the world about us, learn to understand ourselves and other people. As Newman stated, "A man of well improved faculties has the command of another's knowledge. A man without them has not the command of his own."
>
> We must play a dual role with the ability to walk in the uneducated man's shoes as well as our own. With an intelligent understanding of people's behavior patterns, we can make decisions that will benefit our society as a whole, which is the safest for mankind.

The second man's essay included recognition of differences between his views of education and Newman's at the same time as he spoke to admiration of a thinker who had offered him new vistas for the mind.

The road from 'here' to 'there'--from the introduction of the unit with an overview of Newman's life and his commitment to education to the final discussion of his clear distinction between the "Religion of Reason" and the religion of faith--becomes a journey. I am never certain that it will end well. All of us who teach the course and this unit experience like difficulties with the text and its 10- to 20-line sentences, its nineteenth-century diction, its classical and historical allusions. We make use of selected passages; study questions, section by section; classic and contemporary on learning that voice ideas similar to those of Newman. We speak of the man and the text from long personal acquaintance.

As teaching tools, I make use of two passages, analyzed for patterns of words and images, for controlling key statements and structure of the paragraph, to assist reading. A chart of key statements and corrollary ideas from each section of the discourses is an instrument of relative value--helpful as each student may find it. The best aid to understanding is lively discussion of ideas and issues that Newman raises--explicitly and implicitly; of questions students raise after we read carefully together his most significant statements.

That he makes these, and repeats them in varying form and style; that he moves toward and away from these central ideas--few for each discourse and tightly correlated--is the sign of good teaching that students recognize. Once in a while they mention his repetition as a fault, but come to profit by it as he emphasizes, again and again, his premises, principles, and conclusions.

I show them how he works like an eagle, circling in on his prey--the key ideas usually occurring at the center of a central paragraph. The middle sections of a discourse are the heart of his argument, with a later section--and a final sentence of a paragraph--often reiterating or complementing his thesis. The complementarity of metaphor and analytic statement is another aspect of his style students can appreciate. Echoes of "mooring the vessel with a thread of silk" begin to convey the idea that Reason and knowledge are not faith, and cannot save; that taste and common sense are not conscience.

Adult, or non-traditional, students have lived somewhat longer--sometimes decades longer--than their counterparts in the course for Saint Mary freshmen. They appreciate, from experiences of their own, Newman's suffering from failure and defamation, his deep faith, and his determined values. They value his dedication to the knowledge they are sacrificing a good deal to obtain. He represents to them a great mind humbled by life and by self-knowledge, by faith in the presence and providence of God.

This is why they come to the conclusion--most but not all of them--that reading his book was time well spent. For some it becomes a milestone in their education. A woman wrote in her essay: "Now as my education continues, I not only hope that it will help me in my profession, but make me a better person as well. If I can only recall ideas that are factual in nature, I may as well have gone to a technical school. I enjoy learning now. I hope it continues to free my mind from ignorance."

It would be unreasonable to pretend that a unit in liberal education "converts" adult students from practical purposes to a liberal attitude toward their education and all that accompanies it. It would be not only unreasonable, but unjust, to the goals and sacrifices and persistence that I have meant to praise in this paper. We deliberately distinguish between the ideals of liberal education for a leisured class--of England in the nineteenth century--and the goals of liberal education for a working class--all of us in middle America today.

In reading and writing assignments, as well as in discussion, the facts and conditions of life as our students live it are the ever present background of what they learn. We consciously allude to it, draw examples from it, try to acknowledge the difficulties of it in requiring work for the course. An example is the assignment of the precise, a form of summary with precise rules and procedures, invented, of course, by the French. Students find it a challenge, but a "do-able" thing. Almost invariably, they mention satisfaction with the exercise and a sense of learning in the comprehension of the text that it brings. We emphasize that it is a kind of writing serviceable in all collegee disciplines and in much professional work. The discipline of outlining has some of the same effects, but is not so much of a surprise.

Although statistics from course evaluations might weigh in favor of this unit on Newman and liberal education, it would be fairer, perhaps, to quote two brief evaluative statements that represent the range of students' attitudes toward it:

"The thing I liked least was Newman's knowledge. It was hard work sifting through all his words to try and figure out what he was conveying."

"The Book on Newman was the best part. It was pure pleasure."

With such comments, we work at teaching the text, the man, and the unit with more and more assistance to students who will--as others have--profit from it, semester after semester. And with such comments, we yield the podium to a better and much wiser teacher.

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NOT JUST INTERDISCIPLINARY BUT MULTIDISCIPLINARY IS AN ESSENTIAL PROCESS FOR HIGHER EDUCATION

Thomas E. Chambers

For educational survival, educators must realize that every subject taught relates to all studies learned. Interdisciplinary approaches further increase a type of environment of an inter-connection of disciplines. It is no longer a question of should higher education be interdisciplinary but rather should it be multidisciplinary? The ripple effect is that the vibration of the smallest pebble falling into the largest sea will be felt by all.

In the world of academe higher education promotes an interdisciplinary studies approach, but disciplines consider themselves administrative units of education with arbitrary limits of what is to be studied according to the department. This limitation of specialization is fostering, as well as encouraging, inadequate studies of a comprehensive interdisciplinary approach. Important disciplines that connect and are relevant are carelessly ignored unfortunately.

Relevancy of Multidisciplinary Model

The advantages of using a multidisciplinary method of learning are many:

1. Integration of ideas fosters a personal interaction and dialogue among many disciplines. This method promotes the analysis of concepts and ideas that results in a more comprehensive knowledge base. New insights about acquired knowledge assist students in dealing with complex conceptual problems.

2. Organizing microscopic and macroscopic positions with a better understanding of the problem provides for a better understanding of its elements. Problem-solving is attached to decision-making. When a problem is viewed from the micro and macro perspective, there is a depth of insight which secures a better decision-making process. It is unfair to review a society problem only from the point of view of the sociologist. Rather, the psychologist theologian, economist, and biologist may make appraisals that bring greater appreciation of the problem.

3. Personal Growth in the students is a natural process which enhances a reward system of knowing the courses needed to obtain possible results of a situation. Students like intellectual stimulation; the multidisciplinary method offers a refreshing opportunity for holistic knowledge. Narrow-mindedness causes a student to be definitely opinionated, inflexible, or unadaptable.

4. Sensing Complex Problems is a learning environment which helps students to think and reason using the input from various disciplines.

There is a desire on the part of students to invite the opinions of many disciplines in order to arrive at an objective position. Disciplines all offer heavy opinion and subjective bases. Multidisciplinary learning can get through the complexities of possible discipline error in order to arrive at the truth.

Many educators in higher education are unfamiliar with the multidisciplinary approach and even interdisciplinary since they have complete mastery of their own discipline and are not anxious to venture into other areas. The age of specialization has certainly canonized this selective option to become expert in one's own discipline. We find, as a result, the educator's limited attitude of "I won't bother you, and you had better not bother me."

Multidisciplinary approaches will only work among the faculty of a college who want it to work and will make it a quality and depth learning experience for students. Scholarly teaching renders a respect for the multidisciplinary approach because it realistically sees the relationship of cause and effect. How to bring this method of collegiality in creating a commitment to support a multidisciplinary academic curriculum is a serious problem facing college faculties today.

For some educators, multidisciplinary seems to be a progressive process of a higher education adventure. It is a necessity, and not a luxury, since it requests a comprehensive mind to go out of one's own discipline to understand another field of study. This ultimately means that once out of the box of one's own discipline, there is a risk of not being academically prepared to give the right answers to a complex problem. There are many answers to all problems, but a multidisciplinary-trained faculty has more occasion to sensibly interact on the same problem, thus demonstrating to students the importance of weighing all facts before making a decision. Issues may be confused and not understood by students unless there is a chance for scholars to respond in a collective and scholarly way. Oversimplification does not assist a student to become an analytical thinker. Multidisciplinary approaches bring the thoughts, concepts, and ideas from many points of view so that oversimplification will not occur.

Promoters of single disciplinary models criticize a multidisciplinary approach by postulating that multidisciplinary is an exercise in incompatability. The multidisciplinary educator would refute such a postulation by stating that it is compatible to an integrated way of thinking, learning, and knowing because it invites students to go from the descriptive way of learning to that of the analytical. For years professional meant high specialization to the detriment of a more sensible learning style of integration of many disciplines.

Faculty have behavioral traits that are rooted in a serious tradition of respecting the other discipline of a colleague; but now student growth is asking for collaboration of faculty in and outside of their discipline so that comprehensive learning will take place. Faculty can adjust and support the process only when they are aware that it makes much sense to the students. Students have asked for this exchange of interaction in a multidisciplinary learning environment.

In a practical world of survival, it is more critical now to have students be critical thinkers who can assess and arrive at a reasonable conclusion because they can relate to multidisciplinary. This form of interaction of thought blends experiences with theory in order to have outcomes. Students already know that survival in the next millinium depends upon the ability to discover valid answers to complex problems. Faculty need to be aware of this significant factor as they teach students to think analytically and not on a surface level of intellect. Traditional trends have caused some educators to limit their own powerful scope of influence to be only slightly felt.

It would be a fallacy to assert that there does not exist in every discipline a tendency to emphasize its own importance. Such strategy can create in students a lack of knowledge of the fact that a problem may be solved in many ways and with many disciplines. There is a need for interdisciplinary within Natural Sciences where the Math Department help the Biology Department as well as the multidisciplinary approach to the Humanities assisting Natural Sciences. There can be specific relationships between disciplines within and without the scope of what one discipline offers another.

Benefits to Faculty

Educators have the opportunity to weave into their lives and the lives of their students an appreciation for multidisciplinary theory of decision-making and problem-solving. Rene Dubos wrote in the American Scholar:

> Professional specialization tends to distort the view of human problems. Biologists, for example, commonly give the impressions that they regard the intricacies of the genetic code and of the intermediate metabolism as of more importance than the living experience of the whole person. Sociologists and economists are more likely to be concerned with the exponential growth of the technology and commerce than with the vagaries of human tastes. Even humanists and philosophers are prone to shy away from the problems of humanness.[1]

Multidisciplinary is a marvelous way to bring faculty together to share curriculum concerns. It is a time for faculty to bring the threats of their discipline into a meaningful academic experience for students, as well as a challenge for students to integrate what they have learned. Students and faculty alike grow in intellectual confidence and positive thinking about such a merging of concepts.

When faculty recognize the need to promote multidisciplinary education, then it may be suggested to students as a necessity for becoming better educated. Susan Sontag once said: "We must learn to see more. to hear more, to feel more."[2] Cognition and recognition are the desired outcomes of the multidisciplinary experience, both for faculty and for students. The concern lies in the fact that high specialization, like high technology, hinders the interaction of scholarly people.

If education is the process by which people gain insight into the way the world is ordered, then knowledge is the tool for successful value determination in the changing world. Liberal education is the synthesis of knowledge that is developed by the contributions of many disciplines. When academic disciplines become overly professionalized there is a tendency to ignore other supporting discipline. The challenge for faculty is to shape the educational process which will encourage not only interdisciplinary, but a multidisciplinary so that students and faculty are comfortable with such an approach. Where an interdisciplinary approach is established, then an expansion of the multidisciplinary can revolve into sensitive awareness of all disciplines interdependently. Frederich Neff wrote:

> . . . a grasp of the philosophical undergirdings of the education enterprise and the ability to direct learning toward defensible ends constitute an indispensable part of the intellectual equipment of a teacher . . . . The attitudes held by a teacher are probably the most influential aspect of a teacher's equipment.

Educators not only have to understand personal attitudes, but must have an open mind to understand other attitudes in different disciplines. Students may be involved in educational attitudes of many disciplines, but in this day of high regard for specialization the suggested process is neither appreciated nor used. Multidisciplinary education increases awareness of the interconnecting and interrelationship of all life. The study of philosophy, political science, art, biology, science, economics, psychology, etc., are related to the behavior of people. To relate the disciplines in an orderly fashion suggests the necessity for faculty awareness of a significant value of the interconnection, the interdependence, and the intercommunication.

In education philosophers, sociologists, biologists, artists, and psychologists collaborate in their support curriculum development to the benefit of the general requirements of the college. There is a healthy concern about what general courses make a student liberaly educated in the light of a specific philosophy. It takes deliberate awareness on the part of a faculty person to think of ways that can assist academic disciplines not only to support other disciplines but to affirm them.

Interdisciplinary is a powerful suggestion, but multidisciplinary is a call to challenge a dynamic and innovative approach to holistic education. It is a call, a summons, an invitation to become involved with many disciplines. The purpose is to educate students through awareness and importance of the effect of other disciplines upon each discipline. This is a broadening event in education which actually deals with the nature of casuality.

Presenting New Approach to Students

The "how" to deal with multidisciplinary may be handled rather efficiently through two classes--one at the beginning of the semester, and the other toward the end. The title of the class is "Multidisciplinary Integration." Teachers will call attention to the relationship between other disciplines and theirs. These borrowed perceptions may be a base for thinking of cause and effect, relationship and influence. Principles of Sociology would be an example of such a course. The psychologist, ecomonist English teacher, and others offer their frame of reference about the effects of their disciplines upon Sociology. This is another perspective which creates an environment of cooperation where artists discuss with chemists the problem of cause and effect.

Students develop insights of hearing and reviewing the power of one discipline's influence upon the other. Stereotyping is an academic handicap which can immobolize scholarly activity by causing a closed-mind attitude. Students may fall into the canyon of over-certitude by thinking that what is wrong with society is that psychology is the discipline that is needed for successful and harmonious life adjustment. They thus ignore the humanities, fine arts, natural sciences. This attitude is very narrow and destructive because it does not value the input of other important disciplines. The model presented does value the threads of multidisciplines upon the specific course taught within the disciplines.

Successful Models

Another model that may be strengthened by a multidisciplinary curriculum is the developing of a series of integrating courses which bring a variety of disciplines together over a period of either two or four years. Brooklyn College, Flatbush, New York, has developed a comprehensive core curriculum of specific disciplines. The faculty of Brooklyn College are the creators of this core.

Boston College is currently in the process of coring disciplines into a multidisciplinary curriculum.

Alverno College has an approach of competency-based and assessment-type processes which requires all students of Alverno to complete before their proceeding into another area. There are strong fibres of CORE which truly integrate the multidisciplinary way. Terminology for curriculum renewal varies from traditional tracking to a more relevant term which is process. Terminology is a vital determinant showing that action is occurring and apathy is under attack.

Models give direction to those institutions which seek ideas and strategy for effective planning of a core curriculum that is comprehensive with proper balance for human and intellectual growth. Curriculum creation is in vogue. Faculty can teach their own disciplines but to be able to be interdisciplinary or multidisciplinary, educators must give additional strength to an established curriculum.

A word of caution--the topic is multidisciplinary not interdisciplinary. Interdisciplinary connotes a predetermined limit of focus. Many new core curricular models restrict participation by predetermining which disciplines will be connected with only one or two other disciplines, rather than with many. The danger seems to loom in the overstructuring of the core curriculum with the faculty intending to be thorough. Course development which creates tracking, processing, competencies are probably reinventing the wheel since introductory courses may be designated as general requirements with the integrating class. Faculty can be multidisciplinary in a prudent and creative sense in which *linking* is natural and not fabricated.

Faculty may become vulnerable to curriculum changes. This is the case, for instance since Harvard has returned to the core curriculum. The University of Notre Dame never left a core and is heralded as one of the most solid academic institutions in the United States. Curriculum theorists support faculty returning to the mission and philosophy statement in order to develop credibility in a rapidly changing academic market. Multidisciplinary may be seen as a threat and concern about "turf invasion" because of the fearful need to protect one's discipline.

We presume that faculty are open minded and flexible to both interdisciplinary and multidisciplinary approaches. Many educators are not totally comfortable nor do they see the value. One way of easing into a new model is to have faculty development programs address the value of multidisciplinary approach. If such an approach is inaugurated there is a need to train and assist faculty to understand the method. Students want and appreciate the leadership of faculty in this type of relevant education. Multidisciplinary needs support, awareness, and an appreciation for its positive value.

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MARKETING INTERDISCIPLINARY PROGRAMS IN AGRICULTURE, BUSINESS, PUBLIC ADMINISTRATION, AND FRENCH

Richard L. Frautschi

In the late 1970's the President's Commission on Foreign Language and International Studies projected a disturbing scenario: with the rapid internationalization of commerce and industry, monolingual and monocultural American business executives and civil servants would be increasingly disadvantaged in the emerging global village. Today, the Commission's prophecy would appear to be well on the way to fulfillment.

In response to growing competition from abroad, and fueled by the pragmatism of a post-Vietnam student body, several public and private U.S. universities, including my own, began to develop undergraduate and graduate programs linking advanced study of a foreign language and a professional or vocational subject. In my paper I would like to review (1) the development at Penn State of such non-tradiational and interdisciplinary alliances, (2) student response to the new curricula as witnessed by enrollment curves and career choices, and (3) further opportunities for curricular redesign involving foreign languages, including the crucial factor of proficiency measures for buyers and sellers.

In 1975, the Penn State French Department negotiated a Bachelor of Science major with the College of Business Administration. The new degree included the addition of a Business French course to existing offerings in language and culture as well as thirty credits in Business/Economics. An optional semester of study at a technical institute of the University of Nice was also included. By 1979 some sixty-five students (that is, two-thirds of our undergraduate majors) were opting for the new degree.

Encouraged by the favorable reception of the French/Business undergraduate degree, in 1980 we developed two graduate French/Business degree programs: an MA in French Studies concurrent with an MBA, that is a program for generalists in Business, and a second MA French degree concurrent with an MS in Business with a specialty such as finance or accounting. Optional graduate study at a new business school outside of Nice--CERAM--and a nonremunerated practicum in a French business were also provided. Again, with minimal publicity, the two-plus year dual degree program has attracted a steadily rising number of qualified applicants.

The large number of vacant federal and state civil service positions, highlighted in the findings of the President's Commission, not to mention growing numbers of international andminority students seeking a degree in public administration, has prompted us to design a newly approved concurrent degree program in French and Public Administration. As with the Master's French and Business degrees, the MA-MPA will link advanced competency in francophone language and culture with expertise in public affairs. A bilingual Master's paper is required.

Again, aware of a need for francophone agriculturalists from Penn State to consult in developing countries, our College of Agriculture has received an AID grant to provide intensive instruction for faculty members. To our pleasant surpirse last January instead of a handful of instructors volunteering for the late afternoon course, over twenty-five showed interest, necessitating three classes: beginners, intermediates, and advanced. We have staffed the sections with experienced master teachers, plus European and Third World informants, using techniques (TPR, Suggestopedia) to break down inhibitions and emphasizing a specialized vocabulary.

As an aside, I would note the profound impact of our Business, Public Administration and Agriculture programs on faculty recruiting. Ten years ago faculty specialties reflected those of most U.S. foreign language departments with an array of literary areas remain, but they have have been supplemented by appointments in Language Acquisition, Third World Francophone Culture, Anthropology, Fine Arts, and Pedagogy. As many as six faculty members are available to offer courses in business french. In brief, the internationalization of the curriculum has recofigured the faculty. Our recent faculty recruiting efforts in nontraditional areas of French language and culture have revealed a lack of specialists trained in the new curricula. Hence, in order to train teachers for nontraditional foreign language programs, we have revamped our Masters and doctoral requirements to include concentrations in Civilization, Linguistics and Pedagogy in addition to Literary Criticism.

Moving to the second part of my presentation, let me suggest student response to the new curricula and student patterns of career choice. As noted above, vocational pragmatism has prompted a majority of our French majors to select the BS Business Option. Those who have not wished to pursue graduate study have entered the marketplace in a wide variety of appointments ranging from financial institutions and apparel design to the travel industry and multinational corporations. A similar pattern is discernible at the Master's level where concurrent degree graduates are finding employment in French companies with American branches as well as in business and finance. Ironically the first MA-MBA/MS graduates entered the marketplace at a moment of economic downturn, plus an oversupply of MBAs. Yet all graduates (10 to date) have found employment: for example, Goldman-Sachs, Europ Assistance, and Booz, Allen and Hamilton.

The concurrent Master's program in French and Business has also attracted a growing number of international students who, while multilingual, want training in comparative cultural analysis. the first such graduates are finding attractive positions abroad. We anticipate a similar interest among international students in the new French-Public Administration Master's program.

Let me now turn to further opportunities for Non-traditional/internationalized curricula with a French connection. Because some undergraduate French-Business students did not function comfortably in increasingly quantified Business/Economics courses, yet still wanted a "pratical" instead of a liberal degree, we now offer an alternative to the BS French-Business Option: a BS degee in French, Technical Writing and Translation. Contacts with multinational companies indicated that although they employed native speakers abroad for publicity and marketing purposes, the home offices were still in need of personnel with advanced translation skills. Also, data from the American Translator's Association and its regional affiliates indicated that the volume of translation needs continues to rise. Additional resources for the instructional infrastructure are now a first priority for the Department.

Curiously, despite the vocational drift of liberal studies in the United States, one can also detect a counter-current. Two years ago the Department received a small grant from the Pennsylvania Council for International Education to develop a new course in the History of French Cuisine for Penn State majors in Hotel, Restaurant and Institutional Management. The course, offered in English, has attracted an average of fifty students per semester. Our administration classifies the offering as a Humanities elective, a curricular judgment which reinforces the intrinsic popularity of the subject. We are considering a second semester of the course which will identify the adaptation of French gastronomy in francophone areas throughout the world. The development of an adequate library of audio-visuals for the course will require additional resources as will proposed computer-aided review diskettes.

Last summer the Associate Dean for Liberal Arts at Penn State and I met with representatives from the Penn State College of Engineering. We discussed the development of a new Engineering degree with a "super minor" in a foreign language. Engineering accreditation boards have recently favored such curricula by evaluating foreign languages courses within a Humanities rubric, an interpretation which some of my language colleagues do not embrace with enthusiasm. In short order we were able to identify 22 credits of post-intermediate French which with judicious interpretation would fit within the tightly structured requirements for undergraduate Engineering majors. The proposal has received an initially positive response from our Engineering College. Students and even a few alumni, haven gotten wind of the discussions, are now pressing the administration to approve the program, particularly as in one varition students could spend a junior year in a French Engineering school with whom we have made contact. Time will tell whether this lastest non-traditional proposal will go forward.

Let me conclude by emphasizing a few of the marketing constraints which we have encountered. First, I would note the generally receptive attitude among upper-level administrators in the development of internationalized curricula. Faculty members both in and outside foreign language programs have been understandably less eager to embrace alternative curricula, especially when these are perceived as extra burdens. But once the curricular and instructional networks are clarified and after student satisfaction has become evident, in my experience instructors generally grow very supportive.

As a final point, and speaking as a foreign language teacher, I am sensitive to the dual thrust of internationalized curricula. On the one hand are those innovations which require or assume that English will be the language of instruction. There are also course and curricular innovations which suggest, if not require the use of a foreign language. In the development of non-traditional/internationalized curricula using a foreign language I would underscore a continuing concern of faculty curricular committees and administrators about proficiency: we must assure buyers and sellers, meaning students, as well as faculty and administrators that language learners with an interdisciplinary concentration in French will not complete their study program without an acceptable level of oral and written compentency. Hence the recently developed oral proficiency guidelines which are gradually being implemented on a national level will be crucial to the long-term success of new interdisciplinary curricula with a foreign language component. Without incorporating achievement measures into an interdisciplinary second language program, we risk returning to the monolingual/monocultural stereotypes identified by the President's Commission on International Studies more than five years ago. We know that foreign language study as a passive proficiency enhances a liberal education and cognitive development. Yet a truly internationalized curriculum for American students must also assure functional comptency in a second language as we find ourselves increasingly domiciled in the global village.

Business Option
The Pennsylvania State University, Department of French
BACHELOR OF SCIENCE IN FRENCH

1. FRENCH (37 credits)

Fr. 201 Oral Communication and Reading, Fr. 202 Grammar and Composition, Fr. 308 Business Writing in French, Fr. 310 French Press, Fr. 330 French Culture and Civilization, Fr. 350 Introduction to French Literature, Fr. 203 Applied Phonetics, Fr. 430 Contemporary France, Fr. 401 Advanced Composition and Conversation, Fr. 402 Advanced Stylistics, One 400-level French course, One 400-level French Literature course

II. BUSINESS (21 credits)

Acctg. 101 Introductory Financial Accounting, Finance 301 Corporation Finance, IB 303 International Business Operations, IB 322 International Business and National Politics, Mgmt. 100 Survey of Management, Mktg. 221 Contemporary American Marketing, QBA 101 Elementary Business Statistic OR Stat. 200 Elementary Statistics

III. RELATED AREAS (12 credits)

Econ. 2 Introductory Microeconomics and Policy, Econ. 4 Introductory Macroeconomics and Policy, Econ. 333 International Economics, Eng. 219 Business Writing

Concurrent Master's Degree Program
The Pennsylvania State University, Department of French
MA IN FRENCH STUDIES AND MBA

The concurrent MA in French Studies/MBA program will consist of a minimum of 66 credits: 39 credits in MBA courses and 27 credits in graduate French language and culture.

Business-- I. Tool and Theory Courses: Management 531 (Management Information Systems), QBA 510 (Statistical Analysi), Accounting 511 (Financial and Managerial Accounting), QBA 511 (Quantitative Business Analysis for Business Decisions), BA 533 (Prices and Markets), BA 517 (Communication Skills), Management 501 (Behavioral Science in Business); II. Functional Courses: Marketing 500 (Marketing Management), OPMGT 510 (Operations Management), and Finance 531 (Financial Management); III. "Capstone" Courses Management571 (Administrative Integration), BA 555 (Business and Society), and IB 500 (International Business).

French--I. Language (minimum of 9 credits): French 507 (Advanced Composition), French 510 (Stylistics), French 508A and B (French Business Communication), French 408 (French American Business Translation); II. Culture and Civilization (minimum of 9 credits): French 530 (La France contemporaine), French 531 (Contemporary Francophone Culture--Africa, Middle East, Caribbean, Orient), French 595A and B (French Civilization from the Middle Ages to the 20th Century); III. Electives (minimum of 9 credits, including literature, linguistics, computer-aided discourse analysis, special topics, etc.).

All dual degree candidates will prepare a paper (zero credit), supervised and approved by a member of the Graduate Faculty in the College of Business Administration and by a member of the Graduate Faculty in the French Department. The subject of the paper will be an aspect of international business in a francophone environment and will be composed in French and in English.

Concurrent Master's Degree Program
The Pennsylvania State University, Department of French
MA IN FRENCH STUDIES MASTER OF PUBLIC ADMINISTRATION

This program of study provides graduate training in both French language/culture and Public Administration for students who plan a career in Public Administration with an international emphasis. The requirements include 25 credits in French and 24 credits in Public Administration.

Public Administration--PubA 569 Doctrine and Practice, PubA 571 Theory of Public Administration, PubA 575 Government Personnel Management, PubA 576 Government Budgeting, PubA 577 Organization and Systems Management, PubA 589 Public Administration Computer Applications, 1 credit paper.

French--Fr. 507 Composition OR Fr. 520 Advanced Stylistics, Fr. 508A French Business Communication, Fr. 530 Contemporary France OR Fr. 531 Francophone Culture OR Fr. 595A & B Analysis of French Civilization OR Fr. 497B French Canadian Language and Culture (choose 4 of the 5 listed), one graduate literature course, one elective, 1 credit paper.

ENGINEERING MAJOR WITH AN OPTION IN FRENCH
The Pennsylvania State University, Department of French
(proposed)

I. Prerequisite: 12th-credit level proficiency to be acquired by 3 or 4 years of high school French, completion of a 12th-credit level course at PSU, or completion of the Summer Intensive French Program.

II. Prescribed courses (16 credits): Fr. 201 Oral Communication and Reading Comprehension, Fr. 202 Grammar and Composition, Fr. 308 Business Writing in French, Fr. 401 Advanced Oral Communication, Fr. 402 Advanced Grammar and Writing

III. Additional Courses (6 credits): Fr. 408 French-American Business Translation OR Fr. 409 Commercial and Technical Translation, Fr. 430 Contemporary France OR Fr. 4xx (new course on francophone culture)

FRENCH 141: CULTURAL TRADITION IN FRENCH CUISINE
The Pennsylvania State University, Department of French
A course for Hotel, Restaurant and Institutional Management Majors

I. Objectives--The course develops skills in understanding and appreciating cultural values of the French gastronomic tradition in literature and contemporary civilization. Students are evaluated on the basis of 2 group research projects, class participation and a final oral exam.

II. Topics Covered--French manners and formulae, including greeting and taking leave; fundamentals of pronunciation; the wine andcheeses of France; French conepts of taste and good taste; handling the French menu; haute cuisine; regional cuisines; import-export and dealing with the French face to face; non-verbal communication of the French; and contemporary trends in French culture.

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SERVICE LEARNING IN AN INTERDISCIPLINARY, COLLEGIATE PROGRAM: PROCESS AND OUTCOMES

Carol H. Hoare
and
Honey W. Nashman

INTRODUCTION

Among the difficulties in collegiate education, the problem of delayed application of knowledge to the "real" world is the attribute which students report as the most difficult to surmount. When incorporated as an essential component in courses, field-based, experiential learning can be employed to alleviate this problem. In the Human Services Program reviewed in this paper, students are prepared to provide direct and indirect service to clients. As such, the inclusion of an experiential component is essential to all courses, whether these be foundations courses in the lower-division or the upper-division internship and seminar. With inclusion of a fieldbased component as the norm, students report fewer frustrations with the realities of delayed applicability, anxieties regarding employment possibilities are lessened, and enhanced learning results.

PURPOSES OF SERVICE-BASED LEARNING

In the generic Human Service field, there is an ongoing need to connect content from disparate subject domains in search of application to contemporary problems. For students, learning how concepts from different disciplines translate into the practice of serving clients is a task that is best learned in the setting in which the problem is actually encountered. This is the dominant reason for service learning in the Human Services Program. An agency- or institution-based setting permits a ready environment for students to apply concepts learned in the classroom and to encounter the reality that client problems are typically multiple in causation and scope. Countering the dual problems of delayed application and passivity that seem to plague students in the classroom, learners become actively engaged in the learning process.

There are other reasons as well. Accepting that the decay of learning from course content alone is significant, occurring relatively soon and in sizeable proportions soon after the course has ended, the converse is true. Concepts that are tied to experiences tend toward greater stability over time. The result is enhanced "anchoring" of new content to the student's existing fund of information (Ausubel, 1968), "amplification" of skills and knowledge (Bruner, 1973), increased retention based on students' mental associations and enhanced episodic-tied, long-term memory storage, and increased transferability of knowledge across contexts. In an active, problem-oriented context, the student tends to become self-activated, claiming credibility and responsibility for the identification and solution of problems. In the practical arena, with recognition that theories and knowledge must inform practice if they are to be useful at all, the student experiences opportunities for success in the adult world of work. That s/he also contributes to the community via such service learning and gains actual work experience desirable to prospective employers are two additional bonuses.

In relating concepts to the needs of clients, juxtaposing academics with some of the problems and issues which confront the human service professional, back in the classroom, the field experience component provides a rich medium for discussion. Here an interesting transformation occurs in the manner in which students approach the learning transaction. Students who actively engage in their fieldwork become active participants, transformed from mere would-be receptacles of information. As providers of some of the data around which learning is focused, students "own" the learning and students and professors can become co-learners in the process.

THE HUMAN SERVICES PROGRAM

A brief description of the entire program is helpful at this juncture in order to view the embeddedness of the service learning component in the total baccalaureate program. Concerned with the preparation of entry-level professionals who will provide direct or indirect service to clients, three major program complements exist. These are the social studies and liberal arts component, the concentration domain, and the core component in Human Services. Encapsulated, these are as follows:

** In recognition that clients live in a complex social environment and typically have multiple and intersecting problems, a strong basis in social studies and supporting liberal arts is offered. Sixty-three semester hours in the social sciences and liberal arts are required. Domains such as sociology, psychology, history, anthropology and literature are included.

** With a need for specialization in one domain of Human Services, the concentration area is provided. Twenty-four semester hours in one of the following supporting areas is elected: Adult Education, Human Resource Development, Rehabilitation Services, Early Childhood Education, Administration, Special Education, and Health Services Administration.

** In order to synthesize knowledge from other components and to provide a focal domain for the presentation and analysis of key education and human development concepts, the core component in Human Services is central in the program. Thirty-nine semester hours are provided in courses such as child and adult development, psychology for learning and teaching, organization in human services, program development, social issues, and the internship and seminar experiences.

For each of the courses and internship experiences in the core component, a field experience component is included, representing a full third of the credit hours. Students engage in 40 hours of fieldbased learning per semester for each three credit course. In the service internship experience, 200 hours of experiential learning per semester represents the core of the course. Agencies used represent the panoply of service provisions, cutting across every type of institution and agency and representing the range of problems in which human service professionals are engaged. Some examples of these agencies are:

Hospitals and health care agencies
Substance abuse programs
Residential centers
Runaway and womens' shelters
Shelters for the homeless
Family service agencies
Child care agencies

Selection of agency type is based on an assessment of the match between the student and the agency in terms of the student's concentration area and projected career direction. For example, a student with a concentration in rehabilitation services who plans a career in the area of substance abuse, might be matched with an Employee Assistance Program or with a "Hot Line" Service for the field-based portion of the Adult Development course. Of course, not every student is certain of his/her career choice as an undergraduate. For such students, field experience in a variety of different agencies and human problem domains helps them to make career decisions based on an assessment of the realities of different types of service work.

STUDENTS' ASSESSMENTS OF SERVICE LEARNING

As one measure of field experience and total program effectiveness, the consideration of student assessments is important. Based on content analysis of student/advisor exit interviews for 55 graduating seniors over the past four years, and random sampling of students' field-experience logs, field project papers, and internship and seminar project evaluations for the same time frame, a program selfstudy was conducted. For 96% of students, the two elements of the program which received the highest ratings were the field experience and program flexibility. Among the personal changes noted by these students, eight new or enhanced abilities were noted by a preponderance of students. In synopsis form, these are:

* Immediate applicability of concepts.
  Concepts learned in class are readily applied.
* Increased interpersonal effectiveness.
* Developed competence in working with clients and professionals of all ages and ability levels.
* Developed ability to set and reach goals.
* Developed ability to assess systems and the people working in them.
* Developed first hand knowledge of what needs to be changed in agencies which provide client services.
* Developed an awareness of the breadth and depth of

human problems which clients present.
- Increased ability to find information in solution to problems.

SOME BENEFITS AND CHALLENGES IN SERVICE LEARNING: GENERALIZATIONS FROM FACULTY, SITE SUPERVISORS AND STUDENTS

In a recent issue of a popular magazine, Frank Trippett (1982) stated:

> The future does not exist except as a concept, a cosmic wisp of possibility. How people view it can make big differences. What befalls society around the bend in the river will not come hurling out of space (weather excepted) but will have arisen out of today. The highest prudence consists not of looking ahead but of giving the best care to the burgeoning, and for better or worse, fruitful moment at hand.

This is an embodiment of the meaning of experiential service-based learning as an integral part of the baccalaureate curriculum. For students, the "fruitful moment" is aptly captured in a setting in which active, problem-applicable learning is possible.

In the use of field experience, it is recognized that the benefits are numerous. However, a number of difficulties exist which must be surmounted. In the past nine years, comments from students, site supervisors and faculty have been collected and analyzed. The following statements reflect a synthesis of benefits and challenges:

Benefits of Service Learning

- Opportunities exist for students to mature with a sense of service and responsibility appropriate to their developmental needs.

- Self-exploration is enhanced -- in terms of the student's moral, social, and inner lives -- towards becoming a human service professional.

- Opportunities are provided for gaining realistic expectations of the profession.

- Self-awareness is engendered in terms of whether or not the profession provides the job satisfactions required for the student's needs.

- Opportunities exist for learning what is expected of professionals in their interdependent, mutually supportive roles in an organization.

- Professional visibility is enhanced -- for students and for the program.

- Opportunities are provided for developing skills necessary for employment.

- Work references are available to students for employment and/or graduate admissions.

- Heightened awareness of the differences between academia and the world of work is engendered.

- Opportunities exist for application of the intellectual habits and studies of the university curriculum to the service learning site.

- Opportunities exist for students to transfer learning processes from one-dimensional classrooms (where the professor lectures and the student listens) to the interactive, multiple dimensions of the internship site.

- Focusing of students' interests is engendered with the result that curriculum and elective course choices are made with purpose and greater care.

- Opportunities exist for discovering and evaluating the stressors which the undergraduate confronts in the world of work.

- A medium is provided for the student to develop coping skills and to explore the problem of burnout in the profession.

- Students, faculty and site supervisors provide a blend of human resources useful as a vehicle for planned organizational change.

- Opportunities exist for joint research efforts among program faculty, on-site practitioners and students.

- Opportunities exist for experimenting with alternatives in designing, organizing and implementing the curriculum.

- A valuable fund of "voluntary" human resources is available to organizations with reduced budgets (Gramm-Rudman).

Challenges in Service Learning

- A "match" between student capability and site expectations can be difficult to obtain. Menial tasks are productive of scant learning as are responsibilities beyond the student's capabilities and experience.

- Some lack of control is experienced -- for the placement office, faculty and student -- in the quality and management of the service learning experience.

- Students tend to experience role conflict in the disparity between functional attributes of student, professional and volunteer.

- Objective measurement and evaluation of students' experiential learning is difficult.
- Performance appraisals from different site supervisors tend to show variance.
- Service learning can become disembodied from the academic curriculum, especially if it is not integrated into the course content.
- Service learning is labor intensive. Adequate personnel and support services are essential in the placement process.
- Communication problems can arise between site supervisors and program faculty.
- Issues of legal liability, student expense and travel time are encountered.

Despite numerous potential problems, service-based field experience has been found to be an essential cornerstone of the successful Human Services Program. Well-designed and carefully executed, such experiential learning results in a close match with related course content and, eventually, an advantage for graduates who must convince prospective employers or graduate admissions officers that they possess a background of work-related experience and realistic career expectations.

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TAILORING THE EXTERNAL DEGREE TO THE UNIVERSITY AND ITS STUDENTS: THE UNIVERSITY OF WISCONSIN-PARKSIDE'S NONTRADITIONAL INTERDISCIPLINARY EXTERNAL DEGREE IN "CULTURE OF INDUSTRIAL SOCIETY"

Peter S. Hoff

External degree programs come in all shapes and sizes. Entire institutions, such as Empire State University in New York, are dedicated to offering college degrees in a spectrum of fields for distant learners. More commonly, college and university campuses extend some of their traditional degree programs in one way or another to off-campus, nontraditional learners. All of these programs have one thing in common: a recognition that many potential students, for various reasons, cannot feasibly earn their college degrees through the traditional route of coming to a college campus and enrolling in a series of semester or quarter courses. Career demands, family responsibilities, physical handicaps, and even incarceration are among the barriers such students face. But scholastic aptitude and desire to learn are not in short supply. External degree students show plenty of both qualities--and they must, for this is an ardous and challenging route to a college degree. For success, external degree students must possess uncommon motivation, and universities must extend uncommon assistance.

The student bent on earning a degree but unable to enroll in an on-campus program can find offerings in almost every college subject imaginable. Most common are smorgasbord approaches, which have converted many courses from the college catalog into fairly traditional correspondence offerings. In other cases, these courses are actually offered in a field location, such as a local school or shopping center. Sometimes these correspondence or remote-location courses are taught by the college's regular faculty, but more often not. It is relatively rare to find that external degree programs offer access to the same high-quality instruction that may be offered by the on-campus version of such courses.

Such was the heterodox environment that the University of Wisconsin-Parkside entered in the mid-1970's when its System Administration invited the campus to join in the statewide Extended Degree effort. Each campus was to offer an extended degree program in a different curricular area. Parkside, located in the industrial corridor between Milwaukee and Chicago, was asked to develop a program in engineering technology. Parkside's engineers took a brief look, decided the idea was not feasible, and dropped the project.

Two years later, the campus reconsidered extended degrees, examining whether a joint humanities-social science degree could be constructed on the lines of Parkside's new interdisciplinary major in humanities. System administration dangled an attractive funding formula, offered development funds, and specified only that the program involve competence-based contract learning and that it enroll juniors and seniors who had already completed their first two years of college. With those stipulations as a starting point, Parkside developers agreed to the challenge. But they were determined that the program not simply add another smorgasbord to the row of fast-food external degree restaurants whose franchises were lned up outside the halls of ivy. If US-Parkside were to have a program, it must occupy a unique niche, match the mission of the institution, and serve a genuine need that could not be as well met elsewhere.

Some of the necessary data about student needs had already been accumulated. In developing its on-campus humanities major, UW-Parkside campus had interviewed many prospective students. It seemed that much of the interest in, and demand for, that interdisciplinary program came from nontraditional adult students. In the main these people already had jobs, but could not advance because they lacked a college degree. It was not vital that these degrees constitute vocational or professional training--employers simply wanted to promote people with college diplomas, and the prospective students had wide-ranging interests in the liberal arts. Another important group of prospective majors was made up of mothers of small children, who had delayed their college education in order to begin raising families. Many persons from both of these groups were indeed able to attend college--usually part-time, either during the day or at night--on a regular basis. But others could not. Several were in fact prisoners in Wisconsin's penal institutions. Others had erratic job schedules--traveling extensively as salespersons or pilots, for example. The demands placed on them in one way or another did not conform to the routine of the college semester. These people formed the group for whom UW-Parkside's external degree program was designed.

English and humanities professor Peter Hoff, at the time Director of Parkside's Center for Teaching Excellence, and Dr. Stuart Rubner, Director of the Community Student Services Office responsible for counseling adult students, together explored various kinds of existing programs. They visited external degree programs at Empire State and Ohio University, as well as the established extended degree program at UW-Green Bay. They consulted with agencies such as the Council for the Advancement of Experiential Learning (CAEL). And they brought their findings to an advisory committee consisting of professors of English, Philosophy, Communication, History, Anthropology, and Political Science--representatives of the Humanities and Social Science divisions now charged with creating the program.

The group agreed to create an integrated curriculum in keeping with the university's mission and the potential student clientele that had been identified. And they set goals in keeping with the highest aims of liberal education. That is, the curriculum would emphasize development of skills that would not become dated: communication skills, problem-solving skills, flexibility in meeting unforeseen future challenges, and a broad understanding of how our society came to be the way it is. These liberal arts goals would be focused more sharply by placing them in the mission-related context of serving the needs of industrial society. Thus was born the unique curriculum of UW-Parkside's external degree (ACCESS) program: "Culture of Industrial Society." This curriculum offers students an understanding of the modern industrial world--its history, economics, geography, politics, arts, ideas, and literature. It invites students to mesh theory with practice by engaging in activity and study of their immediate environment. And it emphasizes a future-oriented approach to the study of the past and present.

Students entering the ACCESS program are expected to have already completed half their college education. Indeed, this poses a barrier to some students who are totally cut off from even the first two years of college, particularly since Wisconsin has never instituted the junior college component that it intended as part of its extended degree programs. But the accessibility of other external programs, plus the fact that many students can find available course work for the general studies portion of the degree by attending a college or junior college campus, has created a steady supply of qualified candidates for Parkside's upper-level progrm. Often, the student who is just a few courses short of qualifying can manage to take these courses at UW-Parkside.

The ACCESS program curriculum, "Culture of Industrial Society," occupies the final 60 credits of the student's college education, consisting of a broad-field interdisciplinary major. Although the program is individualized and self-paced, the student will normally take four years to complete this 60-credit curriculum. To do so, students usually enroll in a 15-credit learning contract each year.

Year One of the ACCESS program begins with a two-day on-campus orientation and the first course of the sequence: Introduction to Futuristics (2 cr.). Program staff members use this period to explain the nature of the curriculum and help students become acquainted with the kind of study skills and habits that will be necessary for success. Beginning th program with a consideration of the future provides a functional context for the study of the past. Indeed, the rest of the year consists, for these students, of a sequence in "Foundations of Industrial Society," primarily nineteenth-century studies. ACCESS students are asked to consider the past as prologue to the future, and see their study as future-oriented. Hence the "back to the future" apparent reverse order to the initial year's study. Other courses the students complete in the first year are:

Basic Library Skills (non-credit), an introduction to the UW-Parkside Library/Learning Center.

Basic College Research (non-credit), a self-paced introduction to the college research paper.

History of Industrialization in Europe and the United States. (5 cr.)

Intellectual History of Europe and the Industrial Revolution. (3 cr.)

Post-Industrial Revolution Arts. (5 cr.)

The second year sequence also begins on campus, with a weekend course in Computers, data, and the Information Explosion (2 cr.) It initiates a year's study focusing on the twentieth century:

Development of Global Culture. (2 cr.)

History of the Twentieth-Century Industrial Revolution. (4 cr.)

The Intellectual History of the Twentieth-Century Industrial Revolution. (3 cr.)

Modernism in Literature and art of the Twentieth Century. (4 cr.)

This first part of the curriculum is heavily academic in a traditional way. The student must master a good deal of book learning, use library research skills, and master a great deal of academic knowledge at some distance from the course's professor. Fortunately, access to that professor is only a phone call away, and the instruction supervisor of the program maintains weekly contact with students. But no amount of supervision and access can take the place of individual motivation. It is clear that this inner drive is the key ingredient to success in such a program.

During the third and fourth years of the curriculum, students are called on to work with greater independence, and to apply what they have learned to study in their own community and work environments. Subjects such as political science and applied anthropology come into greater play. Courses become tailored to each student's unique circumstances. The organize themselves according to the following headings for a total of thirty credits.

Crucial Choices: An investigation of crucial political and social issues such as energy and resources, international law, health, work and leisure as they impinge on national and international policies and actions. (6 cr.)

Culture and Civilization: An investigation of the nature of culture and the interplay between culture and society in pre-modern and modern societies. (6 cr.)

The Divided World: An examination of the distinctions which divide the modern world--religious and political ideologies, sex, class, race, ethnicity--and their relationships to world order. (6 cr.)

The Changing Arts: A study of modern western art forms--music, design, and film--with respect to their interaction with, and influences on, a technological society. (6 cr.)

Problems in Industrial Society, I: An opportunity to explore in greater depth a topic from "Culture and Civilization" or "The Divided World," using local research and primary archival sources. (3 cr.)

Problems in Industrial Society, II: An opportunity for the student to explore in greater depth a topic from "Crucial Choices" or "The Changing Arts," using local research and primary archival sources. (3 cr.)

Between the conception and the execution of such a program, a great deal often happens. In the case of UW-Parkside's ACCESS program, the main event was the disappearance of the original funding. In 1980, Parkside received a Pilot Grant from the National Endowment for the Humanities to develop the courses and begin offering them to a small group of students. History Professor Thomas Reeves joined Professor Hoff in the initial work, English professor Alan Shucard was chosen as the program's first Director, and Drs. Frances Kavenik (English) and Angela Zophy (History) joined the project as instructional and administrative staff members. After the pilot year, which succeeded in developing most of the essential course materials and successfully debugging the program's procedures, Wisconsin decided not to add any extended degree programs to the four it had already established, and left the Parkside program unfunded. Students who had begun the program were allowed to continue, but no new students were admitted.

In 1983, UW-Parkside decided to assume the cost of continuing the ACCESS program as a regional external degree program admitting a limited number of students (10 each year), building a modest cadre of students within driving range of the university, who could be served on a limited budget by a small staff. This decision placed the program on base budget funding, giving it a measure of permanence. It also helped sharpen further the program's educational focus, making clear the programmatic links to the students of industrial southeastern Wisconsin, reinforcing the idea of a program that would bring students occasionally to campus while facilitating self-paced, independent study.

The program which emerged is a model of efficiency. Compared to the rather generous funding level originally promised by the state, UW-Parkside's ACCESS program operates on minimal funds without sacrificing instructional quality. Professors contribute advice to the program and consultation with ACCESS students as part of their regular load, without released time or additional payment. They have been paid honoraria for creating of course materials. Direct responsibility for instruction is carried out at a ratio of one FTE instructional supervisor for 40 FTE students. This means the instructional supervisor is responsible for 600 student credit hours per year, a bit more than the norm (but close to administrative goals) for on-campus instruction. The program is staffed by part-time clerical help (1/6 FTE) and by a seasonal staff member who comes in during the late spring and summer, when prospective students must be attracted to the program and their applications processed. Very few external degree programs have been able to offer high-quality instruction on this lean a funding formula.

If one applies this sort of econometric approach to judging the success or failure of the program, UW-Parkside's ACCESS program passes muster. Within its modest dimensions, it is attracting as many students as its structure can bear, and is already graduating nearly half of the students who have participated long enough to qualify--a statistic fairly typical of comparable programs.

It would, however, be well to ask other questions and apply other measures. In particular, did the program succeed at what it set out to accomplish? Perhaps the program's greatest success was the creation of an innovative, interdisciplinary curriculum which suits UW-Parkside's mission and the needs of its students. This curriculum challenges students to confront study of the humanities and social sciences in such a way as to perceive relationships among relevant issues in the past, present, and future. Becau[illegible]tance learning is inherent to the program, students are compelled to learn, read, and research independently, and to communicate effectively in writing. These and other communication skills are important elements of the liberal education going on in each course. Students are encouraged by the curriculum not only to learn what books and other documents can teach us about academic subjects, but also to apply their learning to social and humanistic issues in their own work, leisure, and community environments. Problem-solving skills which will help make them flexible and intellectually able well into the twenty-first century emerge from pursuing the "Culture of Industrial Society" curriculum. Not insignificant is the level of self-reliance and self-motivation necessary to complete the degree this way. While it is true that the student entering the program must already possess these qualities in order to have any chance at finishing, there can be no doubt that that the challenge of completing a college curriculum without benefit of classrooms and classmates must instill even greater inner strength and determination, along with ingenuity and other traditional American virtues.

If this program or any other so constituted, is to continue successfully and continue achieving satisfactory results, it cannot remain static. One challenge for the program is to continue attracting appropriate faculty involvement without being able to offer substantial monetary rewards. The faculty steering committee must find ways of keeping course materials current, and of creating appropriate new courses as the program evolves. Evidence of the ACCESS program's success and value to the institution may be a key to attracting administrative support and funding.

A crucial bit of such evidence is the level of student demand and interest. In today's academic environment, where so many college students are electing majors in programs such as business and technology because they perceive a need to use college as explicit career preparation, it is significant that each year more students apply to UW-Parkside's ACCESS program than can be accomodated. Not only is there an obvious need for an external degree program in the region, but clearly the ACCESS program offers a curriculum attractive to working students.

The correspondence smorgasbords will draw their share of students, as will the business degrees by mail. UW-Parkside's ACCESS program has carved out a modest but significant niche for itself by bucking both trends, offering a liberal arts curriculum made up of an integrated sequence of interdisciplinary courses. It explores the relevance of theory to practice and studies the immediate past with an eye to the future.

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COMMUNITY LEARNING:
A CASE STUDY IN INTERDISCIPLINARY COURSE DESIGN

Libby F. Jones

In the 1985-86 University Learning Community at the University of Tennessee, Knoxville, twenty undergraduates and ten faculty from six colleges have explored the theme of "Technology, Society, and the Common Good" in an intensive, supportive learning environment. Students have taken three courses each quarter, two existing University courses related to the theme and one integrative, interactive case studies course team-taught by all participating faculty. This course included a separate weekly meeting to explore the learning process with the Master Learner, the faculty member who took the classes with the students, and was supplemented by wellness sessions aimed at integrating participants' physical and intellectual dimensions.

Tennessee's community has adapted the model of the Federated Learning Communities, created a decade ago by Patrick Hill at the State University of New York at Stony Brook. Hill hoped to revitalize undergraduate education by offering an antidote to the traditionally mismatched expectations of faculty and students, to the atomization of the curriculum, and to the resulting privatization of the academic experience.(1) His alternative was the learning community, in which faculty and students function as learners in a coherent, year-long interdisciplinary curriculum. Hill thus anticipated the call for the creation of communities of learning by such studies as Involvement in Learning (National Institute of Education, 1984) and for facilitating in-depth learning Integrity in the College Curriculum, Association of American Colleges, 1985). Our modifications of the Stony Brook model have elicited even greater interaction among participants. In the Stony Brook model, the weekly three-hour Program Seminar which integrates the subject matter courses is conducted by the Master Learner and the graduate student Mumford Fellow; other teaching faculty are involved only in the optional Interdisciplinary Core course, which meets once a month for two hours. This Program Seminar is the single course which unites the community, since the existing courses are open to all University students. At Tennessee, we have given the community three classes instead of one in which to develop, since all three community courses each quarter have been closed to students outside the community. Further, we have replaced the Program Seminar with an expanded interdisciplinary case studies course that is designed and taught not only by the Master Learner but by all participating faculty. The separate weekly master learning sessions have been used to enhance learning skills, to problem-solve, to provide governance, and to evaluate the learning process of all three courses. As both Master Learner in the community and Acting Director of the University Studies Program, I have participated as teacher, student, and administrator. Here I want to focus on the content and process of the case studies course as it illustrates the demands and rewards of interdisciplinary study.

Course Content

The goal of the course each quarter was to integrate the subject matter courses through providing an arena for applying principles, discussing issues, and becoming personally involved with topics. Thus the methods of learning were as important as the content in selecting materials for the class. Materials included readings, case studies, films, guest speakers, drama; activities included discussion, simulation exercises, individual and group writing, field trips, interviews, oral presentations. To integrate courses in conservation and professional responsibility and to explore the common good, we read Adams' Watership Down, discussed the Harvard Business School case of the Reserve Mining Company in Minnesota, and interviewed professionals in scientific and other fields. To integrate courses in environmental engineering and responsible professionalism and to explore technology, we visited waste water and sewage treatment plants and through the Oshry organizational simulation experienced the uses of power. To integrate courses in human socialization and social psychology and to explore society, we viewed Lucy Phenix's film on the social change in Appalachia fostered by Highlander Folk Center and worked in groups to design our own intentional communities. Particularly successful in course design was the concept of revisiting. Thus the initial discussion of the Reserve Mining case was led by faculty of that quarter's primary courses, conservation (taught by a professor in Forestry, Wildlife, and Fisheries) and professional responsibility (team-taught by professors in Philosophy and Religious Studies); a second discussion of the same case involved additionally the faculty in Environmental Engineering, commenting on the more technical aspects of the case. Watership Down was discussed first by the humanists and the conservationist and later by the sociologist. Revisiting was applied to assignments as well. The major assignment of fall quarter was to interview three persons in a field (students chose environmentalists, biologists, lawyers, psychologists, and funeral directors) to determine the nature of a profession as it relates to practitioners and their backgrounds. In winter quarter, the students designed case studies to explore the ethics of each profession, reinterviewed their groups of professionals, and reported on their extended conclusions to the class. These repeated encounters deepened the group's understanding of issues and allowed learning to build.

Course Process

We found that an informal structure, extensive discussions, and governance by consensus were necessary for the faculty to design the course. Though three full-group meetings and many informal dialogues were held before the beginning of fall quarter, we began the quarter with plans for only three of the ten class sessions. Ultimately six revisions of the syllabus (printed on different colors of paper) were issued to students. This apparent disorganization was actually productive both substantively and symbolically. Substantively it allowed for serendipitous inclusions: for example, midway through the quarter I saw the campus production of Mastrosimone's play Extremities, which presents an intended rape and its consequences; I realized that seeing the play would allow discussion of several relevant issues, such as personal ethics and the law, self and social responsibility, and male and female socialization. I also realized that our wellness coordinators, one of whom was a physician with emergency room experience in treating rape victims, would be excellent resource persons in the discussion. Since there was room on the syllabus, we proposed the activity to the community, who agreed to attend the play as a group. The discussion in class the next day was intense and productive. Symbolically, the faculty's willingness to respond to the group, as manifested by the six syllabi revisions and the inviting of consent for activities, established the principle of participatory learning and encouraged the students to express their needs.

In designing, executing, and evaluating course activities, we evolved an informal system of individual leadership followed by group consensus. The primary faculty for each quarter were responsible for the final course plan, with the goal of drawing on each of the other faculty for at least one activity; the Master Learner called regular faculty meetings (every two to three weeks) and communicated with individual faculty in between, often in the regular classes. The process of decision-making was not entirely democratic, but there was surprisingly little conflict. I attribute this lack of conflict to the respect each faculty member felt for the others' expertise and the desire of each to learn from the others: the emphasis was on complementarity rather than competition for turf. It is true that interdisciplinary programs generally attract faculty who are disposed to be learners, but structuring a course that requires each faculty member to operate out of his or her expertise does much to encourage such response. Consensus also characterized the team grading of group case studies projects. Grading was done individually; the discussions which followed confirmed the existence of shared faculty standards for written work.

The emphasis on the process of learning -- in both faculty and students -- carried over into the conducting of classes as well as the planning of the course. Hill speaks of the importance in the learning community concept of giving people with related interests the time and space to release "the power of human association." (2) Simply creating the occasion for interchange is potent -- especially to undergraduates and faculty at a large, discipline-based, research university like Tennessee. As one student recalled at the end of fall quarter, the essence of the community was contained in the moment when he looked around the table in the case studies course and realized that sitting there were twenty students and six professors. In the classroom interchange, the primary faculty became facilitators rather than dispensers of knowledge. In one case studies class winter quarter, a discussion of the Nova film, "Where Did the Colorado Go?," led by the environmental engineers, was followed by a discussion of academic ethics, beginning with the Sigma Xi publication Honor in Science that the philosophy professor provided; other faculty and students offered examples of real and fictional violations of academic integrity in their own disciplines. That faculty are mediators rather than lecturers is clear from my tabulation of speakers in that session's discussion. Each of the seven faculty members spoke an average of 13 times; each of the fifteen students, an average of 11 times. (The range of individual faculty times was 9 to 19; of individual student times, 0 to 34. Four students spoke more times than any of the faculty.)

Outcomes

A final crucial element in the Learning Community provided by the case studies course is a structured place for the whole community to meet to reflect and evaluate. Each quarter ended with a session where talking and writing about the group experience provided closure of that phase and connections with the quarter to come. Individual oral recall of specific moments in the community was a powerful way of building shared memories; writing exercises also encouraged group interaction. For example, winter quarter closed with a group effort to write a community poem; the following section on the case studies class, written by three faculty and two students, reflects well the nature of the course.

Case Studies

"What we're gonna do today, is..."
(Per Fozzie, our illustrious leader),
Hassle & wrangle & tear it apart
Burn up the pea patch 'cus we're so smart
So many problems, no solutions
Like what to do with our pollution
Causes, issues, principles too
Shooting it out till our faces are blue
Ogling water dirty & clean
Broken and busted sludge-squshing machine.
Where oh where does the Colorado go
Certainly no longer to the Gulf of Californ-ee-o
Dam it and pump it and move it around
Desalination and then we spray it on the ground
Bruce & Greg & Glenn & Charlie -
Sometimes it was good, sometimes it was gnarly
Last wave of the day orange sun on the sea
Jo Lynn & Tom's time to teach you & me.

In summary, our experience suggests that the necessary ingredients for a successful learning community core course -- and probably for all interdisciplinary, team-taught classes -- are the presence of divergent disciplinary viewpoints; a responsiveness to legitimate student needs; a willingness to share personal insights and to take risks; a structure which provides time to share ideas and responses. When these were violated -- when too much new material was introduced, when lecture rather than discussion or interaction format was followed, when too few faculty attended, when faculty conserved their traditional power rather than empowering students -- the class was less successful. At best, the active engagement of varied minds on significant issues has resulted in powerful intellectual and personal growth for both faculty and students. As one student commented, "The blending of all my courses has profoundly affected my thinking." Said another, "I am a better person now." Faculty development, rather than being concentrated in the Master Learner, has been extended to ten faculty. We are working now to trace and document this development. The year to come will provide the fullest measure of change as the community moves outward to reconnect with the larger institution. And next fall, a new community begins.

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Running An Interdisciplinary Honors Program at a Two-Year College: The Howard Community College Experience.

Larry Madaras and
Virginia Kirk

Introduction: Origins of Honors and NEH Grant

Howard Community College is a fully accredited, comprehensive community college of medium size which first opened its doors in the Fall of 1970. Located thirty-five miles north of Washington D.C. in Howard County, Maryland the enrollment of the college in this rapidly growing, upper middle class county has stabilized in the 1980s at around 770 full-time equivalent students per semester. There is a wide range of students and ages. Nearly four-fifths of the student population is part-time; approximately two-thirds of the students are women. There are dramatic differences in median age of full-time students (19.7) and part-timers (28) as well as a six year difference in the ages of males (22.9) and females (27.6).

The major impetus for an honors program came from two directions. In 1980-81 the new Dean and the College's new President were interested in improving the quality of instruction for our more advanced students, many of whom were transferring to other institutions at the end of their freshman year. At the same time a number of faculty members who had been with the institution for ten years were anxious to teach new courses in order to maintain their intellectual alertness and to avoid burnout.

In the fall of 1981 Dr. Larry Madaras, co-author of this paper, chaired an Honors Committee composed of faculty members from the four major divisions in the college. The committee kicked around a number of ideas concerning the role of honors in a community college. It was agreed that the college should experiment with an interdisciplinary curriculum of unique courses across the major divisions instead of merely offering honors sections of already existing courses. The interdisciplinary approach had a number of advantages. Our small tight knit faculty was experienced and often taught courses in more than one division. Also the few interdisciplinary courses which had previously been taught such as "Science and Society," "Integrated Science," and the "History and Literature of England" had been very successful.

A final impetus for an interdisciplinary approach came from an NEH grant HCC had gotten five years earlier for a consultant who had suggested to a General Education Committee that an interdisciplinary Social Science/Humanities core course should be developed by the college. With this experience in mind, Dr. Madaras proposed that we apply for an NEH $50,000 Pilot Project Grant to devise new courses and to implement an interdisciplinary honors curriculum.

Howard Community College provided Dr. Madaras with a summer grant to flesh out the curriculum and write the grant. The NEH, however, rejected funding for a full-fledged program; it supported the institution with a smaller grant for $10,000 for the purpose of developing and revising a key interdisciplinary course in the curriculum entitled "In Search of Community" along with a special honors' section of "Introduction to Literature." The grant enabled the college to hire five faculty members over two summers to work on these courses. Four members whose specialties encompassed communication, literature, sociology, and history were involved in developing the reading materials, learning strategies and behavioral objectives for the courses. The fifth faculty member was an educational psychologist who coordinated the course materials and facilitated the student evaluations after the course ended.

Design and Implementation of "In Search of Community:" Summer 1983-Spring 1984

"In Search of Community" would be taught twice: In the spring semester of 1984 it was taught in conjunction with an honors section of "Introduction to Literature;" in the summer of 1984 the "Community" course was revised by faculty paid by the NEH grant and implemented for a second time in the fall of 1984. On the second occasion two new faculty team taught "In Search of Community" in conjunction with an honors section of "Introduction to Composition."

"In Search of Community" was designed to take advantage of the conflict between the traditional and cosmopolitan environments which exist in the county where Howard Community College is located. Before urban visionary James Rouse built the planned community of Columbia in the late 1960s, Howard County, Maryland was composed of small farms and scattered pockets of residential developments. The population of the county in 1960 was only 36,000. Most residents believed in the traditional values of small southern communities. Columbia brought into Howard County a concern for environmental, educational, family, and racial issues that reflected the best and worst aspects of a cosmopolitan society often at variance with the more traditional values of the earlier residents. Change has come rapidly to the county with the population reaching 158,000 in 1986.

In particular the interdisciplinary course was designed to explore the nature of community in three ways: (1) To assess the American character from an historical and current perspective; (2) To analyze some of the major sociological theoretical perspectives about the nature of community such as the mediating roles of neighborhood, church, family and voluntary associations; (3) To apply the theoretical perspectives to the cultural clashes between the newly planned community of Columbia, Maryland and the more traditional Howard County. In addition, the "Introduction to Literature" course was taught in conjunction with "In Search of Community." Readings from literature and poetry were to parallel as closely as possible themes covered in the "Community" course.

Both the "In Search of Community" and the honors "Introduction to Literature" courses had been structured and meshed together so the individual themes would be discussed at similar times in both classes. But a major modification was made in the "Community" course during the second week of the semester as a result of a research proposal made by The Columbia Forum.

The Columbia Forum is an organization whose prime function is to celebrate the birthday of Columbia. Each year a program is presented critically analyzing a particular facet of the city's structure. In 1984, the Columbia Forum decided to present a history of Howard County before the birth of Columbia in 1967. The honors class at Howard Community was asked if they would like to write an outline history of Howard County for a booklet to be published in late March by the Forum. This booklet would be distributed to guests at the birthday celebration on Sunday evening, April 1, at which time other members of the community would present slide/tape shows of the history of Howard County.

The honors class decided that this would be a worthwhile project/though it resulted in eliminating two books, 1984 and The Culture of Narcissism, from the syllabus. It also meant dropping three weeks of formal honors classes at the College and meeting at the Howard County library where there is a sizeable semiarchival clip file on the history of Howard County and Columbia. There were other limitations. There are no books that cover any portion of Howard County history after the Civil War. Even the earlier geneological studies are not very helpful. Therefore, it was necessary to construct a chronology virtually from scratch.

Dr. Madaras soon discovered that he was teaching two different courses at the same time neither of which had been part of the original outline for "In Search of Community." First was a course on Howard County History; secondly was a very informal approach to historical research. The class was divided into groups which researched a particular aspect of Howard County's history. The Projects which the groups produced varied in quality. The chronologies on black history, the history of education, the inventories of major homes in the county were excellent; exceptional was the inventory of the major churches in the county; the histories of the village concept as applied to Columbia's organizational plan and some of the biographies of the major figures in the county's history were less successfully written.

After the students completed their projects Dr. Madaras synthesized their findings into a 32 page chronological framework that covered both the major periods of American history and the history of Howard County. The research Project was a thorough success. The class met its publication deadline and received many thanks from the program director of the Columbia Forum. All students had the additional excitement of seeing their names on the title page of the outline in the booklet.

The final six weeks of "In Search of Community" followed the original outline of the course. Full-time sociologist Professor Mark Canfield discussed several major theoretical frameworks: six kinds of neighborhoods (integral, parochial, diffuse, stepping-stone, transitory, anomic), three types of community (lost, saved, liberated) and the use of family, neighborhood, church and voluntary associations as the four key mediating structures in the community's struggle against the impersonal bureaucratic megastructures pervading the major areas of American society today. The last part of the course applied these sociological frameworks in a study of Howard County and Columbia as clashing traditional and cosmopolitan cultural entities. Each student wrote a final paper of 1500 words analyzing a village in Columbia or a neighborhood in Howard County applying the theories studied in class.

The high point of the course was the evening with James Rouse, the founder and developer of Columbia. He answered a list of questions which the class had prepared and given him in advance. There was a lively interchange of ideas between Mr. Rouse and the students. Mr. Rouse said he would be willing to come again next fall for the new class. In Dr. Madaras' twenty years as a teacher this class was the best summary in any course which he has taught.

A variety of teaching approaches were employed in the courses.. lecture, group discussions, filmstrips, films and guest speakers. Group discussions were generally successful because the students were bright, energetic and usually read their assignments on time. The outside speakers fit in nicely into the structure of the course.

The successes of the interdisciplinary honors courses far outweighed their shortcomings. On the positive side the college successfully launched its honors Project. We started with 19 students and ended with 16. Twelve completed both courses. According to extensive student evaluations of the courses, students felt all three teachers were excited about teaching the courses. Two other achievements should be noted. The history project, though unstructured and unplanned, proved to be an unexpected boom. At the end of the course the students wrote excellent summary papers combining sociological theory with practical knowledge in assessing a neighborhood, village, or some area of Howard County.

Design and Implementation of "In Search of Community:" Summer and Fall, 1984

During the summer, 1984 Sociologist Mark Canfield and English Professor Virginia Kirk revised the organization and content of "In Search of Community" and linked it to an honors section of "Introduction to Composition." As a result of suggestions from the Spring 1984 class, the courses were scheduled back to back in the same classroom. Both Professors shared responsibilities for the "Community" course while Ms. Kirk was solely in charge of the "Introduction to Composition" course.

Two major changes were made: both instructors were in the classroom for all lectures/discussions and the Myers Briggs Type Indicator was used to assess student learning style. Both instructors felt that team teaching provided the opportunity to demonstrate how training in different disciplines influences interests and interpretations of issues. Because both faculty attended all class meetings, they were able to provide a model of academic debate for the students. Although both instructors were present in the classroom at the same time, the first half of the course, the history of America's cultural values and a thorough treatment of Christopher Lasch's The Culture of Narcissism were taught by Professor Kirk. Professor Canfield lead class discussion for the second half of the semester and covered the units on definitions of community and community effectiveness, and the analysis of Neuhaus and Berger's To Empower People.. the Role of Mediating Structures in Public Policy. Canfield also covered the material on solutions to the problems of urban growth (i.e., new towns like Columbia, and Baltimore's gentrification projects).

Because of discussions on critical thinking skills and learning styles in CM 111, Professor Kirk had all the students take the Myers-Briggs personality inventory. As a result of having the students take the Myers-Briggs Canfield/Kirk discovered that only three students in the entire class were extroverts, with the rest being fairly serious introverts. This helped explain the unexpectedly quiet nature of the class as a whole during class discussion sessions. Many students seemed interested but did not say too much. This, as it turns out, is consistent with their personality profile and learning styles and not a lack of interest. Using the MBTI had the additional benefit of serving as a class "ice-breaker." Students seemed to like talking about themselves in the context of their Myers-Briggs personality type and were more relaxed in class discussion after taking the Myers-Briggs.

Extensive course evaluation was done which indicated that although students found the content of "In Search of Community" very interesting and challenging, they felt that the course attempted to cover too much, on too many subjects, in too short a time. This was a new finding because the Spring, 1984 "In Search of Community" class content had been changed due to the Columbia Forum project. The Fall, 1984 class was the first to study "In Search of Community" as it had been originally planned.

Canfield and Kirk agreed with the students concerning most of their proposals for changing the course: to spend more time on fewer topics, and modify the treatment of The Culture of Narcissism, which took a full four weeks of the semester. Students were enthusiastic about class tours and informal gettogethers, and the use of the Myers-Briggs as an ice-breaker and as a way of identifying the various learning styles.

Recruitment and Retention: The Honors Option Seminar

There are essentially two major difficulties encountered when first starting an honors program at a typical community college. The first is recruitment and the second is retention, particularly for interdisciplinary courses which students may have some problems transferring.

The difficulties of identifying potential community college honors students among a population which is able both academically and financially to go away to college are obvious. HCC's open door admissions policy presented us with additional problems for identifying honors students, since admissions applications contain very little information about academic achievement or potential. In our own experience, the previous academic profiles of the students who took part in our "In Search of Community" classes is not clear. Their SAT scores were often not on their transcripts or applications. Their reading and writing levels also varied a lot.

The major advantage of starting the honors program in the Spring 1984 semester was the ability to identify students who were performing exceptionally well in their classes during the prior fall semester. To do this, Dr. Madaras spoke to all full time fauclty at their respective division meetings. Individual faculty members compiled lists of their best students for the project director. Fliers advertising the honors courses were distributed to advisers and students during the pre-registration for the spring semester. Finally, the project director cross-checked these lists with the names given him by full and part-time composition teachers.

The major difficulty in recruiting students for the fall 1984 honors courses lay in the fact that we had to recruit primarily incoming freshman. In the spring and early summer, Dr. Madaras contacted the high school counselors and got from them a list of potential honors students who might be coming to HCC. From 4-12 students per high school were recommended. During the summer, 1984, Virginia Kirk contacted, by letter and phone, each of these students. This yielded about twenty (20) potential students. As an indication of the problems of recruiting students from an affluent population for a community college honors program, some of the students who were recommended by their high school counselors were placed in remedial communications courses when they took the HCC communications placement test.

Three other means were used to recruit honors students. Professor Kirk also looked through the records of all students who applied for, and particularly those who were awarded, HCC Foundation and other academic scholarships. Those students were also contacted by letter and phone. This yielded about fifteen potential students. Another way of identifying potential honors students was to "flag" them during the summer placement testing. Those students who had a low error rate (2 or less errors per 100 words) in their writing sample, plus high vocabulary and reading rates on the reading test, were identified by placement services and their names were forwarded to Professor Kirk, who checked their application records and contacted them by phone. Approximately 20 potential students were identified this way. Professor Kirk also attended all the day and evening orientation sessions the week before the fall semester began to explain the honors curriculum to any entering student who might be interested.

However, despite all our efforts, our most significant observation about the Fall, 1984, "In Search of Community" class was that as a group this class was not significantly more academically oriented or gifted than the ordinary HCC sociology or freshman composition class. We take this to be further evidence of the difficulties of identifying honors students in a community college population. We found that high school counselor recomm[illegible] with one or two exceptions, were particularly poor indicators [illegible] caliber students. Our best students came to the course aft[illegible] identified through either HCC placement testing or HCC [illegible]commendation. This assessment of how best to identify honors [illegible] influenced our proposals for criteria and Procedures for [illegible]ions and for recruitment activities in the future. In addi[illegible] influenced the nature of our proposed honors curriculum, which will be implemented in the future.

As a result of our "out of house" recruitment difficulties we decided recruit "in-house" from the freshman composition courses. To do this we came up with t[illegible]a of an "Honors Option Seminar" associated with CM 111, "Introduct[illegible] to Composition." We decided to institute this seminar and to defer the special topics honors courses until the second semester for several reasons. The first reason is that it would give students one semester to acclimate themselves to college before beginning two particularly challenging honors courses in the second semester. Additionally, it would give students an opportunity to prove themselves before deciding to go on with the honors program.

The third reason for the CM 111 Honors Option Seminar in the first semester is related to the difficulties we encountered with recruitment. These difficulties, coupled with our assessment that many of our better students in the Fall, 1984 "In Search of Community" class were identified "in- house" (through Placement testing or HCC instructor recommendation), have lead us to the conclusion that the most reliable and efficient way to identify genuine honors students is on the basis of their performance in CM 111 "Introduction to Composition."

"Honors Option" was offered in the Fall, 1985 semester, Out of 14 sections of "Introduction to Composition" over 30 students were identified at mid-semester by their instructions as potential honors students. As a result the course was re-defined as a lecture rather than as a seminar course. Those students who were interested and able attended an honors seminar once a week for the remaining 6 weeks of the semester. This seminar was organized and conducted by Professor Kirk in conjunction with other faculty as guest lectures and/or consultants and focus on issues and activities that promoted critical thinking skills, thus directly addressing a major goal of general education.

The course was titled "Critical Thinking and Problem Solving in the Academic Disciplines." At each meeting an HCC faculty member demonstrated how critical thinking and problem solving skills are applied to his or her discipline. After each presentation a response/applied written assignment was given.

Successful completion of "Honors Option" would qualify a student for admissions and continued participation in honors courses at HCC. At this point we think that this method is the best option we have for identifying honors students. Other community colleges, however, use a variety of techniques from essay admissions "test" to SAT and ACT scores, as well as high school counselors recommendations.

By the time our NEH Grant was concluded we had offered or had developed an interdisciplinary course in each of the following: Social Science/-Humanities, Arts/Sciences and Math/Science. To "In Search of Community" we added "Business Ethics" as Social Science/Humanities elective options. Furthermore, to these courses, we added a sophomore level Arts/Science elective "History and Literature of England", and a sophomore Math/Science elective "Creative Problem Solving Using Math/Science and Technology."

During 1985-86, however, we found that only three students from the fall, 1984 "In Search of Community" were still attending HCC and were interested in the Sophomore Level Honors elective: "History and Literature of England." Although two sections of this course were successfully offered, students who were admitted on a special basis were known to the instructors as good students.

Clearly, the problem of retention is a difficult one at least in part because good students at HCC have historically, often transferred before getting an AA degree. In addition, the honors program itself was in a developmental Phase and could not yet provide enough incentive to retain good students. Finally, it should be pointed out that in most honors programs we surveyed including that at the University of Maryland, there are many, many more students who participate in honors courses than there are who actually complete an honors degree. Therefore, while retention of honors students for the full degree Program is a worthy ambition, the success of a community college honors program should not be measured by the number who actually complete a full-fledged honors Program but by the number participating in honors courses during any one semester.

The Proposed Honors Progam at HCC

In the final analysis, we decided that a more realistic approach to offering an honors program at HCC was to mix a combination of honors sections of regular courses with interdisciplinary courses. We decided upon this approach for two basic reasons: cost of staffing a team-taught interdisciplinary course and difficulties in getting students to take courses that may or may not transfer with ease. (This is despite transfer agreements with the university of Maryland. For other colleges, interdisciplinary courses must often be negotiated on an individual basis with the transfer institution).

Our final Honors Program degree requirements are: 6 credits of communication (3 of CM 111 - Honors Option and 3 of CM 120 Honors "Introduction to Literature.") and six credits of honors sections of regular courses or of interdisciplinary honors for a total of 12 credits. Students must maintain a GPA of 3.5.

There are many challenges and many problems involved in offering an honors program at a community college such as HCCC. In this brief historical narrative of our NEH grant we have touched on only a few of the these.

Larry Madaras is Associate Professor of History and Government and former Project Coordinator at Howard Community College. Virginia Kirk is Assistant Professor of Communications in charge of the Writing Program and Project Coordinator of the Honors Program.

CHRONICLES OF THE SEA: THE HISTORY AND LITERATURE OF MAN'S VOYAGES

Lawrence C. Roderer

Two of us, Dick Lacy and Larry Roderer, team taught "Chronicles of the Sea" as an inter-disciplinary course study of the history and literature of man's voyages. J. Sargeant Reynolds Community College introduced the course during the spring quarter of 1984, within the Humanities and Social Sciences Division, at the Parham Road Campus. Twenty-five students shared our experience with the study of man's relationships with the sea.

Team-teaching from the perspectives of the political science and English departments, we created a two-dimensional course which reaches across disciplines incorporating fiction and non-fiction sources to study seafaring, exploration, discovery, colonization, fishing, whaling, mining the sea, and many other topics of man's experience with the ocean and its environment.

Our objective for "Chronicles" was to read and think about the sea in its broadest context; we read such authors as Rudyard Kipling, Herman Melville, and Joseph Conrad with respect to themes from fiction such as realism, romanticism, and the conflict with authority in cases of mutiny; in addition we concentrated on themes of interest to historians, sociologists, scientists, and philosophers with respect to issues concerning the power of nations over the oceans, the law of the sea, man's confinement, endurance, courage, and recreation at sea.

By focusing on one element of man's life--going to sea in ships-we believed that we would learn something about the "flavor of life" during the various periods, and at the same time, come to appreciate the continuity of history. We were acutely interested in scientific writings about the perils and potentials of the sea. Finally, we hoped that we could offer our students the opportunity to participate in experiential learning through several field trips and a voyage.

OBJECTIVES AND READINGS

Our objective in "Chronicles" was to have our students read and think about the sea in the broadest possible context. We wanted them to see and feel the sea as pictured by great writers such as Kipling, Melville, and Conrad, but we also wanted them to know something of the abiding interest in the sea revealed in writings of historians, sociologists, scientists, and philosophers. Of course we would examine literary and social themes in fiction, such as realism and romance, or authority and mutiny; we were no less interested, however, in what insight we could gain about such issues as sea power and international law, the stresses of confinement, and man's capacity for endurance and courage.

METHODOLOGY

Given our overriding objective of bringing to our subject--man's relationship with the sea--a variety of perspectives, and to encourage an inter-disciplinary approach to learning, the advantages of team teaching were clear. Our team happened to be made up of an English professor (Larry Roderer) and a political scientist (Richard Lacy). In reviewing the literature of the sea, Dr. Roderer generally introduced the author and the work, and called attention to passages having particular interest as literature. Here Mr. Lacy's role was to raise questions about historical or political statements or themes, and to focus on ideas or events which would be of interest to the sociologist, psychologist, or even philosopher.

Our reading material was also selected carefully to allow us to gain some understanding of the essential interrelationship among academic disciplines. We wanted our students to see and feel the sea as revealed in fiction and non-fiction. Usually, but not always, Dr. Roderer assumed major responsibility for the fiction, and Mr. Lacy was primarily responsible for non-fiction. In practice, each of us brought whatever we could to each work being discussed. When we could join fiction and non-fiction under a common theme we did so. For example, we discussed Jules Verne's story "The Polups," and then examined several scientific articles about sea life.

To avoid allowing the class to become excessively "instructor-centered"-a real danger anytime you schedule two professors in a classroom together--we utilized "student-centered" learning activities as much as possible. Our students didn't just read about the great writers, scientists, explorers, or ordinary men and women who study or work at sea. Whenever possible, they read first-hand accounts ranging from Christopher Columbus to Rachel Carson. Each week the students wrote personal accounts based on these readings, and shared parts or all of them with the class. Working in small groups, students would attempt to select a piece of writing having particular merit, and then identify the strengths of the report. We used, in addition, vintage films from such sources as the Mystic Seaport Museum to provide a visual experience of square-riggers rounding Cape Horn, and 19th century whaling expeditions.

We also found several individuals with special expertise and interest in our subject (a recognized authority on naval history, for example) who were willing to come in and speak to the class. Student interest and involvement were built on these activities, and especially on field trips. We decided early on to attempt to involve the students in experiential learning; therefore, providing some learning activities outside of the classroom was essential. We decided on four field trips, which we scheduled on Saturdays. Our students visited the National Aquarium in Baltimore, walked the decks of the U.S. Frigate Constellation (the oldest United States warship afloat), and examined boats and naval memorabilia from around the world. We explored one of Virginia's isolated barrier islands, and cast nets to study the fishes and other creatures of the sea. Finally, we participated in scientific experiments in Hampton Rhodes aboard a seventy-three foot topsail schooner.

EVALUATION

We accomplished the goals and objectives we set for "Chronicles," and we will offer the course this spring for the second time; moreover, we intend to fully implement the course within the study of humanities in the state curriculum guide as soon as we can. For this, the first time the course was offered, sixteen students successfully completed all our requirements for five quarter hours credit and nine for three credit hours.

We benefited by sharing our experience with those who attended the recent Virginia Community College Association meetings of the Instructional Affairs Commission, for which we presented a special session on the course, its development, its inter-disciplinary character, and team-teaching aspects. Dr. Roderer plans to present a literature session about the course at the February meeting of the Southeastern Conference on English in the Two-Year College (SCETC) at Greenville, South Carolina. Vita, J. Sargeant Reynolds Community College's alumni magazine, circulation !7,000, published our article on the course in one of its recent issues (copy attached), and we look forward to sharing our experience with others who are curious about our efforts with team-teaching, inter-disciplinary education, and integrating complementary studies such as ours in the classroom.

Students' comments on organization, instruction, readings, assignments, texts, field trips, and other matters proved very positive (copies attached); and we would like to include two themes which give some responses to the course from students' viewpoints. Please also accept two other examples of students' writing: their responses to questions on the final exam (attached). Finally, we submit our list of readings and schedule of activities as further examples of our efforts with course design, delivery, and development.

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CULTURES PAST AND PRESENT:
A NEW APPROACH TO BROADENING THE CURRICULUM

Delmar C. Wilcox

Almost ten years ago a number of us on the faculty and in the administration of Western New England College began holding meetings to see what could be done to improve the quality of intellectual life on campus. Our complaints were the perennial ones-that students were ignorant of many facts of history, geography and culture that used to be taken for granted, that students showed little intellectual curiosity, and so forth. It may be that the history of Western New England College made these conditions especially visible. The school has a long tradition of professional education. Founded in 1919 as a branch of Northeastern University, the College held all classes in the evening and the only courses of study were law and business until 1956. A School of Engineering was added in that year, and the first day classes began in 1957. The School of Arts and Sciences opened in 1966. Day enrollment is around 2200, with a somewhat smaller number of evening students. The School of Business has the most students, both day and evening, but the School of Arts and Sciences has the largest faculty, because of the number of service courses required by the other schools. These circumstances naturally sharpen one's sense of the distinction between liberal and professional education.

At first our thoughts ran along the usual lines: require more courses in history, literature and philosophy. But the curricula in those fields where students needed broadening most, business, engineering and science, were already so packed with requirements that it seemed fruitless to hope for much change. Moreover, as we tried to estimate the results that might be achieved by requiring one or two specific courses from the usual offerings in the humanities a deeper problem emerged.

On the surface the argument for a broad curriculum seems simple. Most people are doomed to lifetimes of drudgery in specialized fields, so they should be exposed to "the larger issues" or the "human dimension" of life by taking courses where these are the subjects. Thus they will be able to see their own endeavors in a larger perspective and escape the emptiness and futility of mere material success. We only have to allow room in the curriculum and calculate the number of credits required to produce "a significant blend of liberal and professional education" by encouraging "each student to develop ability to think clearly, discipline in self-expression, sensitivity to moral concerns, and a sense of historical perspective" and "the capacity to enjoy a lifetime of learning" (Western New England College General Bulletin, 7).

In the day-to-day struggle, however, students find their chosen fields challenging; they doubt that success will ever leave them feeling empty. They have enough to do maintaining grade-point averages and working to pay tuition; they resent being asked to carry useless baggage. More significantly, traditional courses in the humanities themselves constitute a formidable barrier to broadening the curriculum.

How can that be? The problem is that no matter how large and humane the subject of a course, the instructor is a professional trained in a methodology as technical and discipline-specific as that of any accountant or electrical engineer. Consider the plight of a student trying to meet humanities requirements at a well known college somewhere in New England. In a recent catalogue such choices as these abound:

> ENGLISH 199X ENGLISH DRAMA BEFORE SHAKESPEARE--A representative selection of medieval and Tudor plays (liturgical, miracle, mystery, morality, interlude, early and transitional comedy and tragedy).
>
> HISTORY 177Z THE ENLIGHTENMENT--This course meets distribution requirements in the School of Social Science. Newton's God, Voltaire on Pascal, Vico's New Science, Montesquieu on the Laws, Rousseau on Morals, Hume on Popular Religion, Gibbon on Decline, Diderot's Dilemma, Condorcet on Progress, Kant and Herder on World History.

These courses may well be broadening, but one almost needs to have taken them even to understand what the subject-matters are. Once enrolled, students must learn a code that is no easier to decipher just because it speaks about universal subjects. Although no one would teach a sophomore literature survey with the same technical rigor as a course in the theory of the novel, students still recognize teachers as experts, and expect them to relate to texts and ideas in ways that are hopelessly beyond students' humble skills. In their eyes, this disparity dictates a passive response to great works and ideas thrust upon them, a cautious let's-see-what-he-wants attitude.

As we cast about for ways of removing this fundamental barrier, we tried to define the goal of education in the humanities in a way that would not involve discipline-specific limitations. The most general idea that we could discover was that it tries to make students aware of what people are like and what makes them that way, the forces that shape human lives.

When we deliberated about ways of awakening this sense in our students, we concluded that something with maximum impact, almost shock force was going to be needed. Moreover, what had to be stressed was not something could be learned only from one particular culture (ancient Greece, say, or even Western Civilization), but rather from any civilization. From these discussions emerged the idea of comparing ancient and modern cultures, comparing them not from the perspective of any single academic discipline, but in the broadest view possible, and presenting them in such a way that students would make connections to their own frames of reference. To achieve this wide, non-disciplinary perspective we proposed two things. The course would use team teaching and would analyze all cultures from the same five points of view:

environment, historical context, aesthetics, social relations, and philosophy.

We began conventionally enough, with ancient Greece--Athens in the 5th century B.C.E.--paired with Britain between WWI and WWII. The dependance of both these cultures on the sea provides a useful basis for comparison and contrast in the first category. The historical context shows one culture on the point of acquiring an overseas empire, the other about to lose one; one culture is approaching a devastating war, the other has just survived one. The realm of aesthetics exhibits the rapid evolution of style from archaic idealism to something like realism in ancient Greece, from which the post-impressionist styles of the twentieth century seem almost a logical progression. In politics the fact that both societies call themselves democracies, makes for meaningful comparisons. Philosophy offers, among other things, the figures of Socrates and Bertrand Russell--differing in doctrine but similar in their conception of the philosopher's role in the world.

The course tries to lead students to picture civilizations as concretely as possible and to discover, evaluate and explain comparisons like these for themselves. At least half the reading material consists of primary sources. The course uses slides, films, recorded music, and artifacts, such as pottery. In two lectures and one small group discussion per week, each culture is explored alone for approximately five weeks; the final weeks of the term are devoted to comparisons. At the end of each segment of the course students write essays of about ten pages.

Subsequent courses in the program have followed this model. Their titles attest to the wide-ranging and eclectic tastes of our faculty:

Puritan New England and Modern Israel
Ancient Greece and Modern Britain
Ancient Israel and East Germany
Moslem Spain and South Africa
Augustan Rome and Fin-de-siecle Vienna
Ancient Maya and Modern India
Charlemagne's France and Modern Arabia
Kievan Russia and France of the Third Republic
Han China and Modern Mexico
Ancient Egypt and Modern Japan

The question might be asked, Where did we find faculty with experience in such a wild assortment of cultures? The answer is that we did not really want to confront students with experts, in the sense of professors who are already highly trained in the subject (though some modules do make use of occasional guest lecturers); instead, we saw this as an opportunity to show our students expert learners, teachers who themselves embody the ideals of broad education and lifelong learning. The principal requirement for participation in the Cultures Program is an interest in a civilization outside one's regular academic area. For example, the course in Maya and Modern India is taught by a chemist and a professor of management; Ancient Egypt and Modern Japan was created by a mathematician and an electrical engineer.

The cornerstone of each module is a syllabus of assignments and discussion questions prepared by the teaching team in a summer workshop. (Each team includes three instructors. Two are principally responsible for the lectures, while one is an English tutor.) During the eight-week summer session two teams meet with the Director and Assistant Director twice each week to present sample lecture outlines. In this forum, participants try to react as students might, and so the course takes shape, with reading assignments, related discussion questions, and often unanticipated discoveries. (An outside evaluator described one session as "an exciting demonstration of creatively shared ignorance.")

Faculty who have taken part in these workshops have been most enthusiastic about the experience. Since our institution emphasizes teaching as the primary faculty responsibility (the standard load is twelve semester hours), most teachers settle into a routine cycle of courses after a few years. Stepping into the Cultures Past and Present program has enabled a number of them to pursue interests that they would not otherwise have been able to explore intensively and systematically. Teaching the course once a year (or even every other year) enables them to continue this development at a reasonable pace.

An important member of the teaching team is the English tutor. Enrollment in each module is limited to 60, of whom up to 40 may be freshmen. Since freshmen would be enrolled in a composition class anyway, it was decided to link two sections of freshman English to each section of Cultures. All the work in composition is based on readings and lectures in the associated Cultures course. For example, most English tutors begin their courses by requiring summaries of lectures. This simple assignment provides an opportunity to assess students' skills in some important areas--listening, note-taking, and distinguishing between ideas and details, to mention a few. The English tutor also provides feedback to the lecturers to make them aware of how effectively their ideas have gotten across. (This information, chastening though it sometimes is, is essential, and becomes available much more quickly in this course than in a conventional one because of the constant interaction of the teaching team.)

So far, this report has been a glowing one. Students encounter foreign cultures intensively; they learn to write extensively; faculty renew themselves by pursuing avocational intellectual quests; learning becomes democratic rather than dictatorial. There must be a catch somewhere. Indeed, there are several, though (I hope) they are not fatal. Some problems arise from the faculty, and others from the students.

One element in the program that will always be problematical is the degree of faculty commitment that it requires. These courses demand more time and energy than others. When it has been necessary to recruit replacements for those who have dropped out (two retired, one went to another institution, and one got fed up) we have discovered that this fact looms very large. With 20 faculty already involved, out of a total of just over 100 (full-time), we may have reached the limit of those for whom innovation is its own reward.

Once a requirement of one semester of Cultures Past and Present had been adopted by the three principal undergraduate divisions (Business, Arts and Sciences and Engineering), students began to question its utility, as they do with other requirements of similar intent. In a sense, this problem is good because it keeps us honest and challenges us to make the experience worthwhile.

Finally, one question that is regularly asked brings us face to face with the difficulty of broadening the curriculum by any means whatever: How much can be learned about a culture in just five weeks? The answer is, not enough, certainly. If the aim were to acquaint students with a particular society, its history, art, literature, philosophy, religion, technology, economy, ethnography and climate, much more time would be required. A single course does not a lifelong learner make. Whenever we demand that students study a little bit of something for the sake of broadening themselves we still have to solve this problem of time; and we still have to figure out what to require. Because of the way in which subjects are carved up by academic specialization, exposure to the full range of human interests would require a number of courses. Even if students, faculties and accrediting commissions could be convinced to limit the scope of career-oriented curricula and open them to the humanities, the problem of technical specialization within the humanities themselves would remain. As long as graduate programs concentrate on scholarship alone, knowledge will continue to evolve along specialized paths. In this context, the Cultures Past and Present approach offers students a way to discover that human experience is interesting to educated people, and it furnishes them with models of active learning to follow in all the courses that they take. It is not possible to say that the intellectual glaciers have retreated, giving hope of lush tropical growth across whole continents; but the sun is shining.

The Cultures Past and Present Program has been supported in part by three grants from the National Endowment for the Humanities.

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UNITING THE SCIENCES AND MUSIC
AN INTERDISCIPLINARY APPROACH

Lemuel Berry, Jr.

As a general rule, students at the undergraduate level of study who are classified as music majors are required to enroll in a series of science and health science courses. However, these courses are not presented to the music students in such a format which provides an opportunity for practical application. Because of prevalent problems in most college curriculums, the information gained by the music student is only pertinent through the conclusion of the final examination. In order to add merit to those core science courses which are a part of most curriculums, instructors must address issues which are related to the music discipline.

Various approaches to structuring an interdisciplinary program should be addressed at the secondary level. The implementation of such a concept would provide the student with a broader background. Therefore, increasing his level of competence at the collegiate level. Institutions of higher learning should implement interdisciplinary courses with music and science combined. At this level of learning a student's perception of the correlation within fields is very keen. Thus, his understanding of interaction(s) is adaptable to broad based learning activities.

Course Topics - Physics of Sound

A physicist, an instructor of physical science, a speech pathologist and a vocal instructor should be in a position to correlate the similarities and practical applications of acoustical signals (sound waves). The study of sound waves can be addressed through a comparison of forced waves and the functional operation of the vocal apparatus. Initially, a direct study of a solid tube with a uniform cross-sectional area can be viewed in relation to those resonances which can be produced. Likewise, the human vocal tract which produces resonances can be studied and compared in relationship to those properties (vibrations/sound waves) which cause different wave lengths or sounds. One similarity which will be noted between the voice box and a closed tube is that they can produce resonant frequencies of similar odd-number multiples (500 cps, 1500 cps, 2500 cps, 3500 cps, etc.). These frequencies can be studied in regards to their structural value. For the vocalist, an understanding of sound/tone production will have an even greater meaning when areas of study, learning and teaching involve vocal range production, vocal health and the development of tone color.

Further study of wave lengths/vibrations by the performer and general music student can also be enhanced from a theoretical approach.

A student of physical science will acknowledge the following wave vibrations which correlate with the strings of a piano.

c	261.6	f	349.2	a	440.0
c#	277.2	f#	370.0	a#	466.2
d	293.6	g	392.0	b	439.9
d#	311.1	g#	415.3	c	523.2
e	329.6				

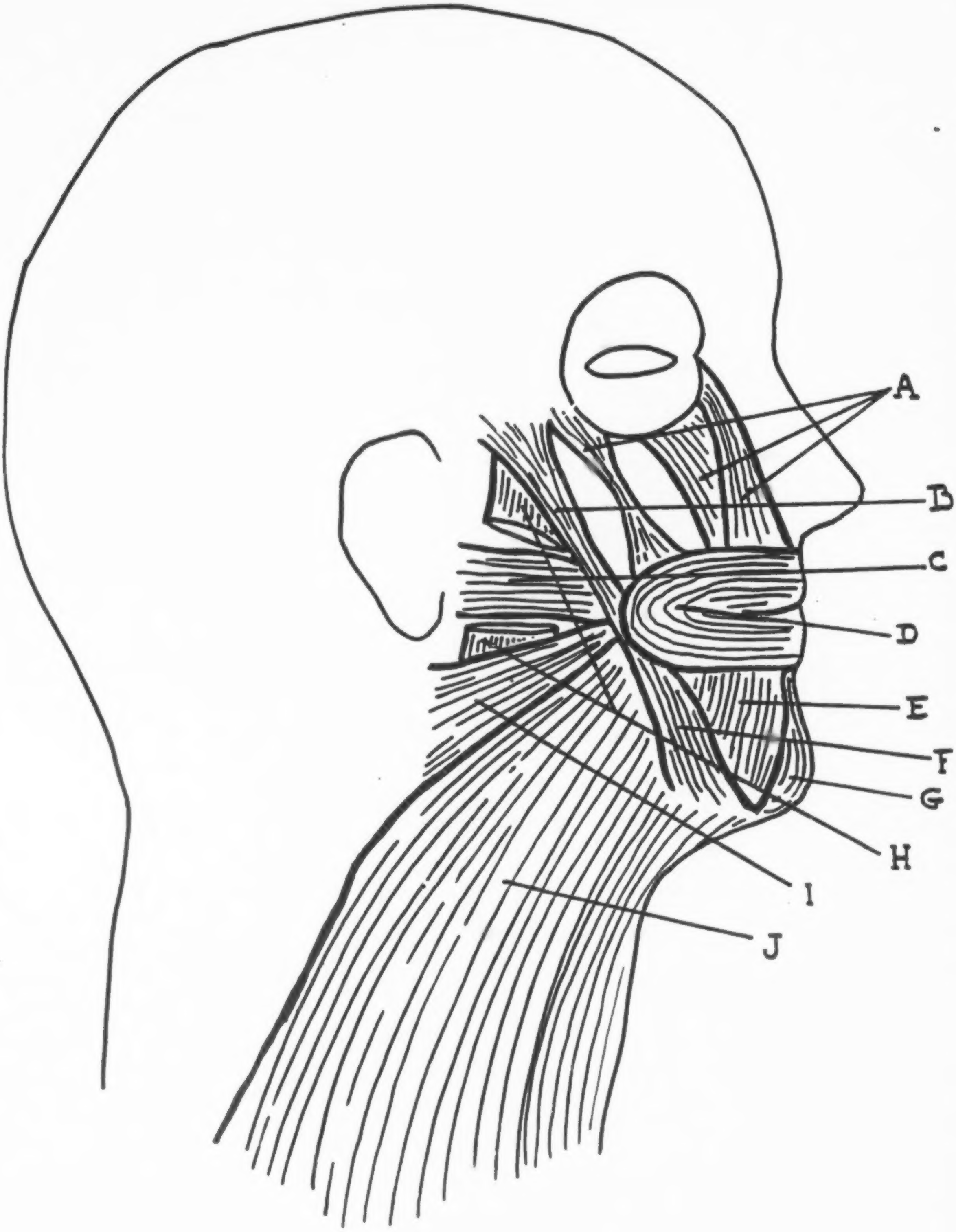
However, these same vibrations mean very little to the student of music unless they are placed in correlation with practicle principles or applications. In this regards, a better understanding of the forementioned would benefit the music students if the study were utilized in conjunction with music fundamental and theoretical classes. These classes incorporate the study of pitch discrimination (wave lengths/ vibrations), interval study which involves the understanding of vibrations and mathematical relations (ex. 3:2, 5:1, etc.) and vocal production. The study of vocal production will again involve obtaining information about forced air, resonances, etc.

Course Topic - Speech Production

The speech pathologist is concerned with the human vocal organs and their practical application through the production of sound. The vocal organs include the windpipe, the lungs, the larynx (includes vocal cords), the throat or pharynx, the nose and the mouth. Supportive areas of interest involved in the study of speech production also involve the nasal cavity, the teeth, lips, soft palate, the tongue, the epiglottis, hyoid cartilage, the vocal cords, thyroid cartilage, cricoid cartilage, the esophagus and the trachea (see diagram).

Each of those physical elements previously listed are essential for adequate speech production and in the production of musical pitches. A comparision between speech and musical production would be most appropriate. Through a comparision of any similarities or dissimilarities in sound production, the student would be able to discuss such issues as proper diction, vowel sounds which affect wave length velocity, muscle action, English consonants and plosive consonants in a broader sense. An understanding of vocal production would enable the musician/ student to become more of a technician. A vocal instructor could, in all practicality incorporate studies involving the forementioned as a formal part of the vocal instruction. Furthermore, a speech specialists could be directed to discuss the vocal process.

In addition to the study of the similarities-dissimilarities in the production of sound which is produced by the voice apparatus, the music student would also benefit from a broader study of the facial muscles and their contribution in vocal and wind instrument performance. These muscles


A
B
C
D
E
F
G
H
I
J

A. Quadratus labii superioris. Raises the upper lip and also moves it slightly forward.

B. Zygomaticus. Draws the corners of the lips backward and upward.

C. Buccinator. (Latin, meaning a trumpet player) Compresses or holds the cheeks in, forcing the air to the lips.

D. Orbicularis oris. A circular muscle surrounding the lip.

E. Quadratus labii inferioris. Drops the lower lip doward and a little lateralward.

F. Triangularis. Depresses the lip corners; with the Caninus, it draws the corners of the lips medialward.

G. Mentalis. Raises and protrudes the lower lip.

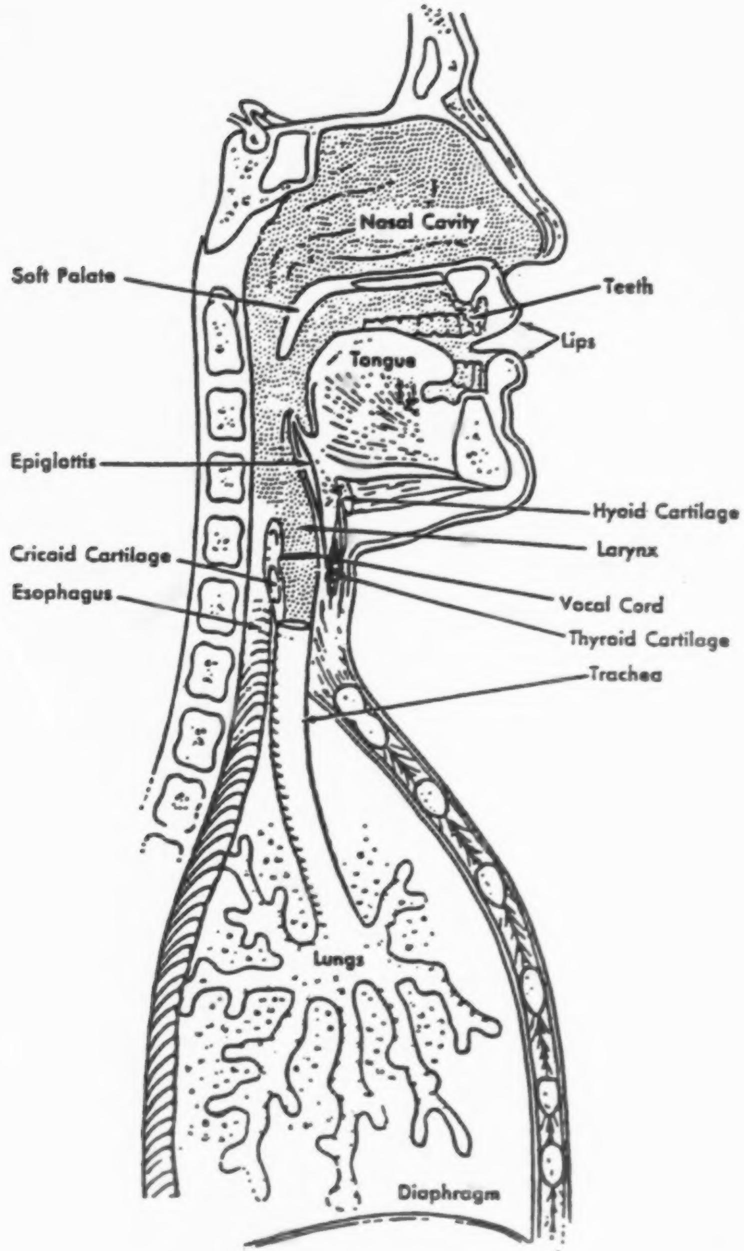
H. Masseter. Closes the jaws.

I. Risorius. Retracts the corners of the lips.

J. Platysma. Brings the lip corners down and backward; acting with A, F, and G, it retracts and depresses the angele of the lips.

are very significant in contributing to the musicians performance capabilities. Therefore, some study of their viability should be discussed in class by a music instructor. In order to stress the importance of these muscles, the instructor must involve the areas of health science, physiology and possibly speech. From the study of these muscles, the student will acquire information which identifies how each muscle may act independently from the others. In addition to their role as an independent entity, an understanding of their interaction would also be noted. The information acquired will contribute to the music students understanding of the strength and sensitivity of each muscle. This knowledge will also enhance performance techniques in the development of the under achiever.

Because of the interaction of so many of the phases of the upper body, the music instructor may also wish to involve studies in the area of orthodontics. Again, we see a need to incorporate an interdisciplinary approach. Unless the music faculty member has studied the influence of orthodontics on performance capabilities, he will again have to call upon the services of the health sciences. An individual from the area of general dentistry would assist in the study of malocclusions and their classification, orthodontic appliances, oral cavity changes, and protective appliances for use with the younger performer. Without an interaction between music and the health sciences, academic instruction would be limited to basic information which for most parts does not address or identify those problems, concerns, etc. which are prevalent beyond the music aspect.


Nasal Cavity
Soft Palate
Teeth
Lips
Tongue
Epiglottis
Hyoid Cartilage
Larynx
Cricoid Cartilage
Esophagus
Vocal Cord
Thyroid Cartilage
Trachea
Lungs
Diaphragm

An interdisciplinary approach to the study and learning in the field of music is most appropriate. It is only through this method that learning and teaching in the classroom can be enhanced.

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GEORGE MASON UNIVERSITY'S PAGE PROGRAM--AN EXAMPLE OF EXTERNALLY FUNDED CURRICULUM DEVELOPMENT

Beverly Blois

On August 29, 1983, the first class in George Mason University's PAGE Program, an experimental general education program, was taught in the Harris Theater on GMU's main campus. PAGE (Plan for Alternative General Education) was at that moment slightly over two years old, from the original discussions that led to its development. It was, and remains after four years of implementation, an alternative to the university's general education distribution requirements, offering instead a completely redesigned, comprehensive, interdisciplinary freshman-sophomore curriculum to 300 entering freshmen each year.

I have researched the development of the PAGE curriculum, by examining the documents produced and retained by its designers and also by conducting taped interviews with approximately twenty of those individuals most closely associated with the program. Concentrating on the period between the inception of the project, in the spring and summer of 1981, and the time at which it entered the classroom as a living curriculum, in August, 1983, I have attempted to construct a chronological narrative of the program's development and then to analyze the PAGE experiment as an example of both curriculum development and curriculum installation. I have undertaken these analyses by comparing the actual work and comments of the PAGE designers with certain landmarks in the respective literatures of curriculum development and project implementation.

Three factors underlie the development of the PAGE Program: one was local to the university, one was at the state level, and one at the national level. First, and on the local level, was the arrival at GMU of a new president, George Johnson, in 1978. Johnson, formerly Dean of the College of Arts and Sciences at Temple University, had a long involvement in curriculum development and intended to initiate general education reform at GMU. Second, at the state level in Virginia, was the establishment of the Funds for Excellence Program by the State Council for Higher Education in 1980. Originally designed to provide monies for projects at colleges and universities which faced declining enrollments or other emergencies of a similar nature, this funding source early on began also to supply grants to universities with growing pains. Third, and framing all else, was the national mood in academe that, by the late 1970s, came to be very supportive of experiment in or reform of general education curricula.

Upon his arrival at George Mason, Johnson found that this emerging propensity for academic change had not yet taken hold. In his addresses to the faculty, he began regularly to call attention to the need for reestablishing a center of gravity in the undergraduate curriculum. A series of memoranda between Johnson, once a professor of English literature, and Jan Cohn, chair of the GMU English Department, led, in

June 1981, to Johnson's asking Cohn to form a small working group that could produce a proposal for submission in the next funding round of the Funds for Excellence Program in February, 1982. Cohn enlisted Joe Scimecca, chair of the Sociology Department, Fred Siff, then professor of decision sciences in the School of Business, and Jay Wilson, professor of biology. The rest is history--local history, at least. Meeting during the fall semester, 1981, the group wrote a draft proposal, which was later submitted to the State Council and was funded for the 1982-84 biennium (funding was later extended to allow a four-year Period of classroom experience). The original award was the largest ever made by the Funds for Excellence, and allowed for the intensive faculty development that was at the project's heart.

There was a three-stage process by which faculty were brought into involvement with the PAGE Program. In the summer of 1982, twelve faculty members joined the original four planners to be trained as leaders for the further development of the curriculum, which though sketched out in the funding proposal, needed considerable work in order to yield finished courses. Next, during the academic year 1982-83, almost sixty more faculty members joined in the final development of the courses, and most would also then offer them beginning in the fall term, 1983. Before this, however, would occur the final stage of course development: in the summer of 1983, the group of approximately seventy-five would involve themselves in the actual teaching and critiquing of portions of every course to be offered in that first fall term. All of this happened as described, thanks to the almost $400,000 provided in the grant award, the greatest portion of which was prescribed for faculty release time.

During the 1982-83 academic year, after the curriculum was in final form in all but details, the program's designers plus a few others, now reconstituted into an executive committee for the PAGE Program, had to oversee another aspect of the initiation of their project--securing the necessary approvals from faculty and administrative agencies within the university in order to allow the new curriculum actually to become part of that university's structure of operations. For this task, and for other details having to do with installing the new curriculum, a director was selected--William Lankford, professor of physics, one of the group of twelve course leaders trained in the summer of 1982.

Because of the insularity of the project during its first six months of existence, some amount of resistance to it had built up in the university, and when the project had to run a gamut of committees in order to gain formal acceptance, much of this resistance was vented. Fortunately for the program, Lankford was able to gain acceptance from department heads, mainly through one-to-one dialog, and from the Faculty Senate (of which he was a former chair),to which the entire curriculum had to be submitted for consideration. He also oversaw the compilation of complete course syllabi into a catalog of the program, a formality necessary for gaining final acceptance of the courses for graduation requirements. In the spring of 1983 Lankford resigned as director of the program and was replaced by two of the original designers of the project, Jan Cohn and Fred Siff, serving as codirectors. Finishing touches, as described above, were put on the program in the summer of 1983, and the completed curriculum went into classrooms in the fall semester, 1983.

What had happened here? How had a curriculum been produced, from concept to reality, in two years? In the words of Jan Cohn, the spiritual and actual leader of almost all aspects of the project,

> ... we made it up as we were going along. I mean, this is the triumph of the amateur, and it worked.

Cohn's words might well be the credo for this particular example of curriculum development. No models or examples of projects at other universities, past or present, were pondered by the designers of PAGE. No formal charge was provided them by Johnson, who nonetheless provided invaluable sanction to the effort at its outset. Few actual guidelines or objectives were given the twelve faculty inducted into the project in the summer of 1982. For their guidance there was a list of courses, each with a few phrases of description, and certain philosophical premises of the program as a whole. Only after the fuller descriptions of all courses had been produced during that summer's work did much thought go into how the program would be steered through the possibly tortuous channels of the various university committees that had to pass on it. Insufficient thought went into how and when to select a director until this position was hurried into existence just in time to handle the approvals process in the fall of 1982. Throughout, certain matters went practically unattended. The best example in this regard is the issue of evaluation of the program, which remained unclear even as the curriculum was going into the classroom in the fall of 1983.

How can we account for the rapid creation of a curriculum which, nonetheless, followed a perhaps unusual cycle of development and left some important issues relatively unattended? The rapidity of development can, in large part, be explained by the necessity, under grant funding, for following a precise, and usually fast-paced, timetable, while the atypical (for academe) cycle of development--produce the product, then secure the clearances to offer it--was also a virtual necessity for a sponsored program. The fact that some matters, such as evaluation of the project, dangled in uncertainty even as the curriculum was being completed is harder to explain, but may arise from the preferred work style of the four program designers. This work style may be described with a maxim from Napoleon: *On s'engage et puis voir*. Rather than specifying their objectives at the start, those who designed PAGE preferred to immerse themselves in the imagining of a curriculum in its wholeness and then working back, or allowing others to work back, to its specifics.

In the matter of securing university acceptance of the program, there also was a tendency to work without formal plan, facing challenges where and when they became apparent, but with the assuredness of having a more-orless finished product in hand for all to examine at the time and place the approvals were being sought. Provision of funds by the State Council gave the project much independence, but forced a rapid pace on it and made of it, for better or worse, an enclave within the university for most of the period of its development.

While the designers of PAGE did not themselves look up from their task to appraise what they were doing, comparisons can be offered of the finished product as an example of both curriculum development and program implementation. The most famous, and influential, example of establishing systematic procedures for curriculum development, beginning with formal behavioral objectives, is offered in Tyler's 1950 Basic Principles of Curriculum and Instruction. Tyler posits a progression from objectives to outcomes and on to evaluation for designing a curriculum. This attempt to find a systematic procedure and to substitute it for individual initiatives has always had its advocates, but criticism of the "Tyler rationale" became pronounced only in the late 1960s' articles of Elliott Eisner. Eisner felt Tyler's approach overly rigid and demeaning of the dynamic task that had to be faced in any attempt to establish or change a curriculum. Feeling that education is largely the domain of the unmeasurable, Eisner stated that objectives need not precede the selection and organization of content for courses. For Eisner, curriculum making was more an artful than a managerial task. Decker Walker, an advocate of the Eisner approach, describes it as "jumping in first to try to do it." While not an exact translation of the Napoleonic maxim supra, this will do as an approximation.

When shown brief written expressions of both the Tyler and Eisner approaches, all four PAGE designers preferred the latter as a description of what they had done. Jan Cohn went farthest, saying that the procedures of the Tyler approach "put the dead hand on intellectual ferment and excitement." The alternative, more open approach of, for instance, the summer 1982 PAGE activities was described by one participant as having been "encouraged to play." The mechanics of the Tyler method would seem to be antithetical to the PAGE project, and well might have stifled it.

In regard to steering the nearly completed curriculum through the process of gaining university approval, it again appears that those involved worked largely without formal plan. Phenomena that might have proved inhibiting to the project were dealt with piecemeal. Rather than a formal plan, there seems to have been at work here what Michael Fullan calls "organized common sense," which may be especially appropriate to what Zelda Gamson terms "the politics of small worlds." Gamson also feels that securing external funds is a virtual necessity to success in curricular reform, an opinion shared by the PAGE planners (when asked to identify, from Gaff's list of six choices, the two factors that most aided their efforts).

Grant funding, plus an approach akin to that described by Eisner for creating or revising a curriculum, all but dictated the course of development of PAGE. Obtaining external funds, by an almost natural process, led those responsible for producing the final product to produce it first and then deal with resistance to its implementation as this presented itself. Following the Eisner approach to curriculum low-rated, if it did not preclude, establishment of educational objectives at the outset, and once a curriculum lacking them had been assembled, there was no inclination to insert them. The PAGE group, armed with funds and with a working calendar, was always in a hurry, while the university at large, external to but also vital to the project, was never in a hurry. There was always reason for the PAGE group to look to the short run for clues as to how to operate. Violating the naturally slower pace of academic normalcy, this, as most sponsored programs, posed a challenge to the context into which it was being introduced, which had been the intent of those who imagined it, those who designed it, and those who funded it.

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SCIENCE AND SOCIETY: AN INTERDISCIPLINARY GENERAL DEGREE REOUIREMENT

Donald J. Dietrich

Ever since C. P. Snow's Two Cultures, the issue of relating the humanities/social sciences to science/technology has been keenly debated with increasing concern. Snow and others (Ellul, Galbraith, Cendron, Teich) have been particularly concerned with the increasing difficulty in communicating ideas and feelings between those educated in the traditional literary culture and those trained in the new scientific attitudes. Snow asserted that more and more people in our society have lost even the pretense of a common culture. Additionally, highly educated persons seem no longer able to communicate with each other on the plane of what should be their major intellectual concerns. Such a condition has serious ramifications for our creative, intellectual and, above all, our normal life. It could lead men and women to interpret the past wrongly, to misjudge the present, and to fail the deal with the future.

At a time when science is determining much of mankind's destiny lack of communication can be lethal. Scientists can give bad advice, and decision makers may not know whether it is good or bad. Likewise, scientists in a divided culture provide a knowledge of some potentialities which is theirs alone. All of this makes the political process more complex and more dangerous than can be tolerated for long as men and women work to avoid disasters and define the future parameters of society. With these thoughts in mind, how can universities prepare students to deal with the complex technological issues characteristic of today's society?

Courses which fulfill the general degree requirements are carefully identified on most campuses, tend to focus on a specific academic area, and are designed to give the student experience in a single discipline. Rarely, it seems, are connections between courses, much less disciplines, ever made, unless the student pursues the relationship. Certainly. there are interdisciplinary courses on most campuses, but they are expensive to offer and are based, some suggest, on an exploitative model. Logistics revolving around the release of staff for such courses as well as the sheer expenditure of intellectual energy among the participating faculty, who are pursuing other teaching or research commitments, tend to limit voluntary interdisciplinary endeavors across the curriculum.

To decide on introducing a general degree requirement that is interdisciplinary is a move that can have a variety of implications within a university in which funding is merely at an adequate level. In 1980-81 the faculty of the University of Wisconsin-Stevens Point (9,000 students), however, began a long and intense review of the general degree requirements. The university itself is composed of four colleges and includes the traditional liberal arts, social science, and fine arts majors as well as a mission to offer programs in education, home economics, communicative disorders, and natural resources. Along with the all too familiar "turf" battles and general fears that staff would be lost and programs reduced if components of the general degree requirements were expanded or contracted, two major themes or pedagogical ideas began to emerge as members of committees reflected upon their duties. Some voiced a concern that the students were never faced with the challenge to integrate their knowledge derived from varied disciplines and to focus on one specific problem that faced them within a complex, technological world. In other words, the university was graduating technological illiterates. Students were never given a structured, academic experience that compelled them to deal with one issue from different perspectives. Ultimately, a rather traditional general degree package was produced which featured discrete courses taught by the liberal arts, social sciences, mathematics, fine arts, and science faculty. These courses were felt to be the basic foundation suitable for producing the educated graduate, but were designed, in part, to lead the student into the Technology and Contemporary Issue (TCI) 3 credit requirement. After much heated discussion concerning what would constitute a TCI course, seven criteria were established for TCI courses:

1. The course was to deal with the impact of technology on either the way people live or the values people hold.
2. The course must be offered at the junior/senior level.
3. The course must not have any prerequisites.
4. The course must deal with a current continuing, unresolved problem or problems which has (have) been of concern for a reasonable period of time.
5. The course must be relevant to students with diverse academic backgrounds.
6. The course must deal with issues of national or international significance.
7. The course must be interdisciplinary.

Factors that the General Degree Requirements committee were to consider in evaluating the interdisciplinary nature of the course included the following:

1. the catalogue description of the course
2. the training and experience of those who developed the course
3. whether the course is team taught; that is' whether two or more instructors share full responsibility for teaching, testing, and grading

4. the use of guest lecturers
5. the proposed textbook and required materials
6. the bibliography submitted with the proposal
7. the course syllabus

Approximately fifteen courses that fulfill these criteria have been passed and include such titles as "Arms and Arms Control" taught by an historian and a Physicist, "Genocide" taught by an historian and a social psychologist with guest lectures provided by a geneticist, "Frankenstein Revisited" taught by professors of English and Biology," Technology and Contemporary Issues" coordinated through the Sociology Department, "Current Issues in Water Resources" coordinated through the College of Natural Resources. This latter course has featured presentations by representatives from the Wisconsin Department of Natural Resources, an historian, a professor whose major field is fisheries, and a member of the Great Lakes Indian Fish and Wildlife Commission. In general, then, the TCI requirement offered a situation in which faculty and students in the designated courses could have an opportunity to engage in a learning process which would stress synthesizing and analyzing material from two or more disciplines in order to develop interpretations that can help in understanding problems as current as today's newspaper and issues which probably will not be resolved in the near future.

Before this TCI requirement, the University of Wisconsin-Stevens Point did not have a tradition of interdisciplinary courses, primarily for reasons of expense, lack of training in this area among the faculty, and a lack of concrete (monetary) support from the administration. Moreover, because of the competition for scarce resources between the practical or professional academic departments and those housed in the College of Letters and Sciences curricular innovations were viewed with suspicion. The acceptance of the TCI requirement occurred primarily because faculty from several colleges were convinced that the idea itself had merit, because several pressing staffing problems could be resolved, and because research publications in a variety of disciplines indicated that this was a viable instrument to "modernize" somewhat stale curricular offerings.

The TCI requirement was ultimately supported by a broad faculty concensus as well as by the financial resources of the university. Since few members oF the faculty had been trained to deal with the complex relationship between technology and culture, faculty development funds were made available to encourage a redirecting of energy into this area. Such "retraining" has helped produce among the involved faculty a sensitivity toward other disciplines and a realization that perhaps the academic units of the university have become too compartmentalized and that faculty committees were not designed to create a community of scholars and teachers. Similar to virtually all public institutions of higher learning, the funding level at UW-Stevens Point is organized around a specific teacher-student ratio. For upper division courses. this ratio is 1:25. Because of the unique needs of the TCI requirement, i.e., two instructors or a variety of guest lecturers, the deans, in particular the dean of the College of Letters and Sciences where many of the courses are located, decided to allow the TCI course to be taught twice before evaluating the course within a "cost effective" dimension. Because the TCI courses are part of the general degree requirements and because two or more instructors are involved, however, classes with fifty or more students can be maintained and pose no problem. The response to these elements has produced some interesting courses and, to a degree, even a revitalized spirit among the faculty participating. Two examples offer illustrations of the potential such a requirement can have in recharging faculty and students alike.

Over the years, antagonism and distrust has characterized the relations between some faculty in the College of Natural Resources and some in the College of Letters and Sciences. This TCI requirement has been viewed by several faculty, however, as offering some mediative possibilities on at least the curricular level in courses that deal with the environment. The condition of the world's environment is clearly the result of specific social, economic, and cultural models and choices which determine the interactions of society and the natural environment. To the same clear extent the social sciences are profoundly relevant to the study of the environmental problems which have resulted and to the solutions which can be found and applied. Too often the environment has not been considered a part of the subject matter of most social sciences. Also, too often there has been a lack of interdisciplinary approaches in research and teaching. Several TCI courses that deal with environmental issues have been offered. In virtually all cases the cognitive processes responsible for producing the course seems to develop along the lines in which knowledge of resource use and the development of social policy are both critical.

The relationship of an environmental dimension *Connect*) to the social sciences, including history, can be accomplished progressively, first by identifying the fundamental environmental content to be integrated into different disciplines and then by implementing proper methodological or conceptual approaches favoring multidisciplinarity. This incorporation of the environmental dimension into a general university education can be designed to facilitate future environmental dialogue, research, and, finally, action. Teaching conducted in such a multidisciplinary fashion can (1) help clarify the specific contributions of the social sciences concerned to an understanding of the interactions between society and the environment; and (2 develop a more holistic body of knowledge corresponding more appropriately to the complexity of environmental reality. To accomplish these tasks those involved in natural resource disciplines and the social sciences have begun an intellectual dialogue as intense as their formerly enthusiastic political debates, but certainly more meaningful for the academic community.

Indicative of the diversity of the offerings housed in the TCI requirement is the course *Genocide: Psycho-Historical Foundations* taught by a social psychologist, an historian, and a geneticist. In this course analyzing genocide allows the students to focus on the state and its monopoly of life-taking propensities. In general, studies (see, for example, Horowitz) have indicated that genocide is the ultimate mechanism for the maintenance of the unified national state, and examples have appeared with unfortunate frequency since the French Revolution. Nazi Germany, of course, offers the unusual case of an advanced technological society virtually eliminating a targeted group. In this course, the Holocaust as a completed case-study and other incidents of genocide offer reflective models for a continuing analysis of political dynamics and the preservation of individual rights in our technological civilization. In essence, genocide within this course raises contemporary and seminal issues, related to the human condition, in such diverse areas as politics, psychology, technology, and genetics. The course has allowed the three faculty members to exchange ideas in class on the responsibilities of scientists to society and of non-scientists to utilize, for example, correct genetic axioms in the formulation of social theory and policies. The students are encouraged in this course to confer with the instructors, to produce a research paper analyzing some aspect of the phenomenon of the use of genocide as a political too, and to prepare to write an essay exam in response to a question given two weeks before the final exam period. In this final exam they are to reflect on the genocidal potential in a current society.

The TCI requirement has resulted in catalyzing student-teacher interaction in a very active learning process and has yielded what could almost be termed a "rebirth" of the traditional Socratic learning process, caused in part by the fact that the faculty involved have approached the course material in a critical, questioning fashion. The courses fulfilling this TCI requirement have addressed the problem cited by Jacques Ellul in Technological Society. In this work Ellul insists that human technology must act to adapt man to mass society. The question is: how can this be accomplished while maintaining the specifically human, moral values developed in the course of man's history. It is rare for college courses to address such a perennial issue, and the result of the attempt at UW-Stevens Point has indicated that the implementation of the TCI requirement has been worth the effort and has created an enthusiastic, intellectual milieu that few would have thought possible during the debates endemic to any academic restructuring.

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SCIENCE IN CONTEXT: INTERDISCIPLINARY APPROACHES TO TEACHING SCIENCE

Allen B. Johnson

Introduction

During the last 20 years the General College at the University of Minnesota has experimented with a number of approaches to teaching science to non-traditional student populations. This article will briefly describe approaches that represent different interpretations of the "Science in Context" theme.

The General College is one of over 20 schools and colleges within the University of Minnesota and is situated on the Minneapolis campus. Since 1932 the College has been the open-door or open-access unit for any student who desired to pursue a college program at the University. The College has traditionally provided a highly student-centered program of general education, career education, and developmental education coordinated with expert advising and counseling services for its 3000 students. The mean high school percentile rank from Romano and Razzaque is between 30 to 35, with over 80 percent at or below the 50th percentile.

One of the delights of teaching in a student-centered, open-door college has been the opportunity for faculty to experiment with curriculum and instruction methods that seemed to be more appropriate for the needs of the student population.

A two-pronged approach to delivering the "Science in Context" curricula was designed to enable

1) non-science majors or science anxious students to "try out" science by applying more traditional concepts and principles in the context of something students are familiar with or confident about; and
2) students to understand that everything is connected or linked to everything else and that often the connection is the most important concept to be learned.

Science in Context at the Freshman-Sophomore Level

The first development and offering of "Science in Context" courses occurred in the late 1960s. Their purpose was to introduce students, particularly science-anxious or non-science majors, to concepts and principles traditionally taught in physics, chemistry, or biology courses in the context of the more familiar physical and biological environment. Examples of these areas include the atmosphere and its weather and climate, human uses of the environment, and personal and environmental health. Emphasis is placed on introducing or discussing a certain familiar phenomenon of the natural environment followed by a detailed study of the physical and/or biological processes that cause or contribute to that phenomenon. More in-depth study easily follows by asking the students what they would expect if certain physical and/or biological factors were varied or changed. The familiar phenomenon--for example, a particular cloud type--may actually exist at the time of class or laboratory or it may be shown by use of slides. At any rate, the students usually do not have a problem relating to the phenomenon.

Before presenting some examples, I would like to comment on the impact that this approach seems to have on some students who initially registered for the course primarily because they needed a science credit. They tend to be anxious or lack confidence in their ability to understand science and are likely to put off science courses as long as possible. On the other hand, students usually have some interest in or curiosity about the weather or the natural environment or the impact of the environment on their own health and well-being. This curiosity helps "break the ice," and once students realize that they have learned some science in the process, they seem to become more motivated to continue. Frequent testing and feedback of results usually adds to the motivation. I give weekly tests in the course in weather and climate. Frequently students will comment that they have lost their "fear of science" during the course.

The fear of science that some students express may be related to the thought process, whether they are in the concrete reasoning stage or the formal reasoning stage. According to Mallow, to really do science, a student must be able to carry out formal reasoning skills. However, Renner found that 50 percent of college freshmen are still concrete operational thinkers; and as many as 40 percent of all Americans never become formal thinkers. It may be that the "Science in Context" approach helps students build their confidence, which may help them bridge the gap between concrete and formal thought.

The following is an example selected from the course Science in Context: Weather and Climate. The course includes a study of the atmosphere, as well as its weather and climate.

Example: The development and subsequent disappearance of cumulus clouds during a pleasant summer day.

This provides the setting to introduce the physical changes that the atmosphere goes through during the course of several hours, including changes in intensity of solar radiation, its absorption by the land surface, the resulting production of heat radiation, the changing density of the air resulting in changing stability which produces thermal mixing or convection during the warmer part of the day. Additional changes occur in the moisture regime in which some moisture evaporates at the surface and condenses at a few thousand feet in altitude. The process of adiabatic change, the impact of dew point temperature and saturation, the importance of condensation nuclei to cloud formation, and the dynamics of cloud development can all be addressed. As evening approaches, many of the changes reverse themselves, and the driving force that caused the clouds to form becomes weaker and eventually stops resulting in the evaporation and disappearance of the clouds.

> By building in some changes, the question can be asked: If ______ was changed, how would _____ be affected? For example, if dew point temperature was higher, what effect would this have on how high the clouds would be above the surface? If the air temperature near the ground was warmer, how much higher would the clouds build? Could a rain shower possibly be produced?

The second purpose mentioned in the introduction and emphasized by Boyer and Levine is that it is important that students understand that knowledge is interconnected in the real world and that narrow areas of knowledge are artificially developed by man in order to study the phenomenon more effectively.

An example from Science in Context: Weather and Climate concerns the cooperative roles of the atmosphere, hydrosphere, soil, and biosphere in carrying out photosynthesis. The products of photosynthesis affect all of us directly in the sense that the oxygen supply that we need for life is maintained and that virtually all of our food is initially produced through the photosynthesis process. In addition, since we are so dependent on energy in the United States, all the fossil fuels (coal, oil, natural gas) were originally produced by photosynthesis. In other words, our car is propelled down the street by sunlight that was generated by nuclear fusion and received by the earth 300 million years ago.

Science in Context at the Baccalaureate Level

During the past 15 years the General College displayed leadership in developing a coordinated studies curriculum that emphasized the integration of knowledge. A number of "package" courses began to sprout up in the curriculum and were aimed at providing a stronger general education foundation to the baccalaureate degree programs of juniors and seniors. Each "package" is characterized by a theme or social issue such as Conflict and Social Change, the Good Life, Energy and the Environment, Conflict and Personal Change. Within each of these, a team of three faculty representing the humanities, the social sciences, and the natural sciences works to present highly interdisciplinary study of the particular theme or issue that comprises 9 to 12 quarter credits.

Major motivation for developing such "packages" arises from the concern expressed by Cleveland that emphasizes that we are an information society and that our educational systems must help us learn to integrate knowledge. People need to develop a holistic viewpoint of issues and not just concentrate on specialized, divided areas of knowledge that presently characterize teaching and research in American higher education.

For purposes of example, the "Science in Context" approach will be drawn from the role of science and technological developments as they apply to Conflict and Social Change. In this "package" the students and faculty consider conflict as a source and result of change in modern, pluralistic society. Conflicts generated and directed by cultural assumptions, bureaucratic procedures, educational and legal processes, resource use and misuse, social inequities, international tension, and causes leading to warfare are all examined. A brief summary of the scientific and technological aspects of the "package follows:

1. The scientific and technological dimensions of social conflict focus on world population and population growth rates and the challenge to the ecosystem and the natural environment to provide that population with the necessary resources over the intermediate and long term future. Careful consideration is given to contrasting viewpoints concerning resource needs, worldwide deficits, scarcity, and pollution as they apply to the less developed and more developed countries.

2. National security is studied from the standpoint of the ecological support system within nations, as well as arms buildup, especially that of nuclear weapons and the prospect of human destruction by nuclear winter.

3. The role of scientific and technological policy in the United States is studied in terms of challenges it faces due to limited resources, changing world order, public demand to influence decision making, and information and knowledge overload.

4. The impact of nature on the human condition focuses on extreme atmospheric (storms), hydrospheric (floods), and terrestrial (earthquakes and volcanic eruptions) effects on the human population.

5. Major emphasis is given to the management, control or resolution of conflict between society, the environment and the ecosystem in terms of conserving resources, development of renewable energy and material resources and reduction of environmental pollution. Students and faculty critique the advice by Brown and Wolf who urge the need for an integratod analysis system and a multidisciplinary approach for analyzing the relationship between ourselves and our environmental support system.

This has been a brief report of two attempts to teach science in ways that make sense to a variety of student populations. Further efforts are planned to evaluate these approaches in terms of their effectiveness in reducing students' fear of science and increasing students' appreciation and understanding of the importance of a holistic perspective of knowledge.

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CHEMISTRY OF ART: A NON-TRADITIONAL SCIENCE COURSE

Esther Waltz

Chemistry of Art is a three credit non-mathematical science elective offered at Community College of Allegheny County, South Campus. This course was designed to enhance learning experiences of both science and non-science students while utilizing particular on-campus facilities. Cooperation with various departments in scheduling has allowed this interdisciplinary effort to be successful.

One of the essential specialties of this course is the constant interplay between varied concepts in science and art. Principles such as atomic structure, bonding, properties of light, color, and chemical reactions are interwoven with canvas board, paint brushes, microscopes, computers, glass sculptures, and cameras.

This course has attracted the non-science student who tends to fear the traditional world of chemistry as well as the science student who tends to fear the traditional world of art. Students are scheduled for two hours of lecture per week and spend, minimally, two laboratory hours per week in either the chemistry, physics, biology, computer, art, or photography laboratories.

Non-science majors usually schedule a non-laboratory science elective such as a geography, meteorology, or an introductory life science course. They tend to avoid chemistry or a lab-oriented science course. Art students, especially, are exposed to and use some potentially hazardous chemicals. These are the people who would benefit by a chemistry course which would enable them to become aware of the types of chemicals that they use, the reactions that might occur when these chemicals are mixed, and any related health hazards. However, non-science oriented people sometimes feel threatened by a traditional introductory chemistry course or any number of other science courses. In many instances this person does not feel comfortable with the level of mathematics required to experience success. In the Chemistry of Art course, however, very little mathematics is used in the presentation. Significant emphasis is placed instead on making the art, or non-science people, aware that they are indeed "chemists" in their fields. At the same time, the science person realizes that he too is a creative individual and an artist in his field of study.

Both artist's and chemical names of pigments are studied. Chemical health hazards of pigments are included, along with other potential hazards associated with artistic endeavors in such areas as ceramics, soldering, silkscreening, and photography. An attempt is made to help the student realize that working in an art lab without proper ventilation, correct safety procedures, and knowledge of chemicals can be more dangerous to one's health than working in a chemistry lab.

The beginning of the course deals with traditional concepts in chemistry: atomic structure, electronic configuration, bonding, and chemical reactions. Work in the chemistry lab centers on producing various pigments, oil paints, and, subsequently, individual paintings. Initially, those students having little or no exposure to a chemistry laboratory are somewhat apprehensive about this environment, its equipment, and its chemicals. On the other hand, those with no experience in an art lab are somewhat intimidated by the paint brush and canvas board. However, after approximately the fourth week of class, apprehensions and intimidations diminish considerably when the students have completed their paintings which are combined works of art and science.

The paintings represent theory, skill, and success in a new area for most of the students, who appropriately deem themselves "Chemartists." The outcome of this initial experience of combining both chemistry and art generally dismisses the stereotyped concept of what a scientist is or does, or what an artist is or does. Rather what they both are or do is essentially interchangeable.

When students study chemical reactions they make the same observations and balance the same equations as does a traditional chemistry class. However, instead of throwing their products away into the chemical disposal area, students produce a "work of art." One project that the students particularly enjoy is bending glass to form a sculpture and filling it with a product of a traditional reaction: replacement of silver from its salt in solution.

An additional segment involves the introduction of the study of textiles on a chemical level. Stereozoom scopes are used to view samples on a microscopic level. Basic organic chemistry, pH, durability and nature of both natural and synthetic fibers are considered both aestheically and chemically. Properties of light such as reflection, refraction, and diffraction are studied in the physics laboratory with the use of physics optics materials. This introduction to optics is followed by the use of microscopes in the biology laboratory. With the use of a Polaroid camera and compound microscope, photomicrographs are made of either slides of crystals that students have prepared in the chemistry lab or commercially prepared biological slides. Students enjoy the artistic expressions that abound in the world of the microscope. This experience involving photomicrography opens up a new world of artistic expression for both the science and the non-science Student.

The utilization of both the physics and the photography laboratories allows the 35mm camera to be studied as both an instrument of science and an instrument of art. Each student shoots a role of film, develops it, makes a proof sheet, and produces several prints. The chemistry involved from the instant when light first strikes the film to the time that the final print is made is studied. If a student has prior darkroom experience, he/she is encouraged to prepare his/her own processing solutions in the chemistry laboratory.

The phenomena of color perception is introduced by studying electronic transitions within atoms and molecules. Wavelength, frequencies, and differences in energy to which the eye responds are discussed. Absorption, reflection, and transmission of light pertinent to color theory are integrated into the course of study. Color mixers, filters, diffraction gratings, prisms, and flame tests are implemented at this time. The "primary" light colors and the "primary" pigment colors are discussed in terms of adsorption, transmission, subtraction, and addition. Interference patterns of soap bubbles, transmission of light through stained glass windows, and the appearance of a rose at dawn are a few topics integrated into this study of color.

Generally speaking, the majority of students taking any chemistry course at South Campus has the opportunity to become more computer literate than they were prior to taking the chemistry class. The implementation of computers in the Chemistry of Art course is through the use of a computer art software program. If the student has had no prior experience with computers he/she will learn the basic operating principles of the computer, design or draw a picture on the computer, and print the results on a color printer. The printer in this instance acts as the artist's pallet. For many students, especially those in the art field, this is the first hands-on experience with not only the computer but also with its function as a potential art form.

This course was originally intended to attract the art student primarily and to fulfill his/her required science elective. However, nearly one hundred students from a variety of fields such as art, business, education, and science have taken the course over the past five semesters and have been successful. As a result of the high interest generated by the course, sections have increased from one in the Spring 1984 semester to two day sections and one evening section in the Fall 1986 semester. For those students who are somewhat unsure of a specific major, this interdisciplinary course allows an opportunity to experience a field or fields that may be somewhat foreign to them. In many cases students have pursued a new direction of studies after completion of Chemistry of Art. A number of art oriented students have registered for a traditional chemistry or science course. Science oriented students have registered for an art of photography course. In most cases students have indicated that they probably would not have registered for courses outside their normal field of study had it not been for their experiences in the Chemistry of Art course.

The concept of a course involving use of a variety of facilities: chemistry, physics, biology, computer, and photography lab initially seemed overwhelming in terms of scheduling. However, Chemistry of Art is successful due to the cooperation and encouragement of members of the departments involved. Students taking the course and faculty participants perhaps appreciate more fully the commonalities existing between the sciences and arts - where creativity is common to both, and where hands on experience, thinking, seeing, and doing can become one.

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DEVELOPMENT AND APPROVAL OF A GRADUATE LIBERAL STUDIES PROGRAM

H. Ramsey Fowler

With apologies for presuming to tell successful program developers how to develop academic programs, I am going to comment upon how a graduate liberal studies curriculum was developed and approved at Memphis State University. Overall, the process became such a complex of idealism, realism, and cynicism that our experienced and reflection upon it, may be of use to those who come after us. Speaking for myself, I would do it all again; but I'm glad I don't have to.

The Context

With 21,000 students, Memphis State University is a large, traditional, urban university working through a familiar range of colleges--Arts and Sciences, Education, Business and the like. Through the departments in these colleges, the university offers a wide variety of master's and about a dozen, doctoral programs. In addition, as is customary the office of the Graduate School is the custodian of all graduate degrees. That School is overseen by a Dean, who works with a University Council for Graduate Studies and Research.

Within this context, University College exists to promote nontraditional and interdisciplinary education. In existence since 1975, it is one of the university's six undergraduate degree-granting colleges, offering the Bachelor of Liberal Studies, and the Bachelor of Professional Studies, degrees. In its eleven years' it has graduated nearly 400 students and has over 500 active or in screening. With an average age of 36, almost all of its students are working adults.

Whether working or not, however, and of whatever age, each student in University College works toward the completion of an individualized and interdisciplinary degree program, always with the support of a faculty advising committee, and sometimes the assistance of group guidelines which exist for such broad areas as Human Services and Health Care Fields and for such specific programs as Printing Management and Aviation Administration. In addition, the college offers minors in Legal Thought and Liberal Arts and in Religion in Society, as well as an endowed program in Judaic Studies.

The plan to develop and to offer a graduate liberal studies program, then, emerged out of University College's history of interdisciplinary curriculum and program development and out of its experience with working adults. In addition, the developers truly believed--and still do believe--that such a program would be of great value to college graduates living in the Memphis area, many of whom, some years ago, had chosen professional undergraduate and/or graduate programs as a means of putting careers on a fast track.

Overview of the Development and Approval Process

Within the context just described, the college undertook an 18-month development and approval process for its graduate liberal studies program. In December of 1983, the Faculty Council of the University College approved such a program as a college priority. By mid-January of the following year, a planning committee had been formed. It worked during the winter and spring of 1984 during which time it also developed a Consultation and Advisory Service proposal for the Association of American Colleges. By May of 1984, the committee had approved a draft curriculum for a Master of Liberal Studies, and in that month entertained the first visit from its AAC-sponsored consultant Dr. Phyllis O'Callaghan, Director of the MALS program at Georgetown. During the summer of 1984, the University College dean visited with the chairs of all the departments whose courses and faculties might be represented in the program and in September of that year, wrote a report based upon those meetings. From September through December, the Dean also visited with members of the University Council for Graduate Studies and Research. In December of 1984, he wrote a report based upon those visits. In that month, as well Dr. O'Callaghan returned for a follow-up consultant's visit.

From January through April of 1985, the planning committee conducted a needs survey of the community and in May of that year took its proposal For a Master of Liberal Studies to the University Council for Graduate Studies and Research. (See Exhibit I) It was approved as Master of Arts in Individual Studies, with a concentration in Liberal Studies. The M.A. in Individual Studies is a degree administered through the graduate school.

Special Problems

I began by suggesting that the development and approval of our graduate liberal studies program was the most complex such undertaking I had experienced as Dean of the University College. It may be helpful to those who come after us if I describe some of the special problems we encountered.

First *a program that belongs to many belongs to no one*. Even if a graduate liberal studies program has an administrative center--in our case, University College- such a program will not have its own faculty. it is absolutely necessary, then, to create a core of true believers, if you will, in addition to the broadest constituency possible. Second, in spirit, *graduate liberal studies is antithetic to the prevailing model for graduate education*, which is characteristically designed to create specialists. This means that those whom you must persuade to your way of thinking are just those least conditioned to agree with you--namely, the officials of the graduate school and its governing body(ies). Third, and almost by consequence, *faculty and administrators will distrust that such a program can have graduate quality*. Opposing interdisciplinary liberal education itself is somewhat like opposing motherhood, but representatives of the graduate school will probably want to see such a program administered at the undergraduate level. Fourth, *critics will want to have their cake and eat it too*. They will tell you how impressed they are that universities like Harvard and Johns Hopkins offer such programs. On the other hand, they will also say that universities like Memphis State should not risk the appearance of compromising quality. Fifth, *building a consensus requires a tremendous commitment of time*. Since it is likely that your project will be viewed with distrust by those who must eventually approve it, it is crucial that you gain the support of those units in the university which will be directly affected by what you do--i.e., the participating departments and their best faculty. Sixth, *many of your supporters will not be unhappy to see you fail*. Doubtless they will stand ready to comfort you sincerely, but they will also prefer not to confront such issues as quality control, curriculum development, individualized advising, and the like, inherent in interdisciplinary graduate liberal studies. Finally, when your program reaches its final approval stage, *it will be discussed and judged in terms appropriate to a disciplinary graduate degree program*. You will have to prepare yourself for questions about library holdings, depth of faculty resources, the social utility of graduate liberal studies, the relevance of non-departmental teaching and interdisciplinary research to tenure and promotion considerations, and the like.

If the preceding seems discouraging, we can all take heart from knowing that even disciplinary graduate programs perceived as "different" will have problems being approved. Developers of nontraditional programs do not have a premium on resistance to change, only some special problems, toward the solving of which, there are some strategies you may want to consider.

Strategies

1. *Be clear about where the program will be administered*. Said another way, this means that the program should have the strong support of an administrator willing to take responsibility for the program. Your provost or graduate dean will be best; but, another academic dean--or, in some systems, a dean of continuing education--will probably do. Whoever will take responsibility for it, in all likelihood, your graduate liberal studies program will have to be perceived as a legitimate extension of some other academic activity already sanctioned by the institution.

2. *Work with the best and most traditional faculty you can find*. Unless your institution has a highly respected interdisciplinary faculty, you will be wise to work principally with strong disciplinarians known to you for having interdisciplinary interests and to the faculty for being respected in their fields--and in the classroom. Since it will be their traditional colleagues who will be asked to approve your program, their reputation will be invaluable to you.

All, for example, should be members of the graduate faculty--if you have such a faculty.

3. *Seek support from outside your institution*. Since many early critics will want to know whether "good" colleges and universities engage in such programs, it will be helpful if you can give them information about such programs as Harvard, Duke, Georgetown, and the like. In addition, certain professional organizations have a great deal of accumulated experience with graduate liberal studies programs and with interdisciplinary activity--either that, or have strong reputations and a supportive attitude. Chief among these is the Association for Graduate Liberal Studies Programs, but relevant too are the Association for General and Liberal Studies and the Association for Integrative Studies. In addition, the Association for American Colleges, dedicated to excellence in, and to the promotion of, liberal learning, will be very supportive (for addresses, see Exhibit II).

4. *Build a broad consensus*. There will be many on your faculty--and not only in your college of arts and sciences--who have an abiding interest in liberal education and who will support your work. More critical, however, will be the chairs of humanities and social science departments--and, depending on the players, chairs of departments of natural sciences. For one thing, department chairs may well see your project as a way of increasing morale among a beleagured faculty. For another, they may welcome the prospect of adding additional graduate students to their classes. In addition, don't overlook the director of your library. He or she will doubtless be grateful for the chance to say good things about the library's holdings in the humanities and the social sciences. And its also likely that the director will have his or her non-professional background in one of these areas.

5. *Reveal (almost) everything*. Secrecy may be your worst enemy, both because you will be working on a program that is nontraditional, and because winning faculty and administrators to your side will be partly a function of showing them how thoroughly and how carefully you do things. Indeed, welcome criticisms and try to incorporate responses into your progress. In any case, be certain that the following persons or groups are kept abreast of your activities: the provost, the graduate dean, academic deans whose departments will be involved, chairs of those departments, and the graduate program approval committee. The last thing you want is to surprise anyone.

6. *Remember that you have chips to play*. Chief among these is the long and rich tradition of study in the liberal arts and sciences. Certain professional disciplinarians will find such study useless, but most will not. Many of those may find your project quixotic, but many, even of these, will believe that a strong liberal studies program has a great deal to do with that universities are supposed to be about.

EXHIBIT I

Program Summary

UNIV 73--	Period Seminar		6
UNIV 74--	Discipline-Based Seminar of Approved Departmental Substitutes	2 x 3 =	6
UNIV 7501	Tutorial I		1
UNIV 7502	Tutorial II		1
UNIV 7503	Tutorial III		1
UNIV 78--	Issues Seminar		6
---- ----	Electives		9
UNIV 7996	Thesis/Project		3
			33 hours

EXHIBIT II

Association for Graduate Liberal Studies Programs

Dr. Phillis O'Callaghan, President
306 Intercultural Center
Georgetown University
Washington, D. C. 20057

Association for Integrative Studies

Professor William H. Newell
School of Interdisciplinary Studies
Western College Program
Miami University
Oxford, Ohio 45056

Association for General and Liberal Studies

Dr. James K. Libbey, Executive Director
Association for General and Liberal Studies
Keith Hall 105
Eastern Kentucky University
Richmond, KY 40475

Association of American Colleges

Dr. John Chandler, President
Association of American Colleges
1818 R Street, N. W.
Washington, D. C. 20009

7. Demonstrate need. This should not be difficult. The experience of member institutions of the Association for Graduate Liberal Studies Programs is that there are many college-educated adults who are hungry for study in the liberal arts and sciences. In some institutions, too, an interdisciplinary graduate program of this sort is the only arts and sciences graduate program that the institution can and will support. And finally, your business officer may perceive another need. Michael Shinagel, Dean of Continuing Education at Harvard, says that he reminds business officers at his institution that when people start to approach 50, they also start to think about changing their wills.

8. Give away your information. Your needs survey will reveal names of persons interested in the liberal arts that your liberal arts departments did not know of. Don't be afraid to provide departments with a list. The chances are good that such persons do not want a degree in psychology or history, anyway; and if they do, it is well that you know that early. In any case, such interest will not change your figures; and you will have demonstrated early what you should have been saying from the start, namely, that you want such a program to support the traditional programs of your college or university.

9. Be flexible. This may be an unnecessary piece of advice; but it is well to know at the beginning that even the Association for Graduate Liberal Studies Programs admits programs which are administered principally for teachers seeking recertification and for working professionals desirous of continuing, but systematic, liberal education; which stress the development of western civilization or require that students confront questions of value; which comprise a lock-step curriculum or a system of certain required courses plus departmental electives; and which lead to such various degrees as the Master of Arts, the Master of Arts in Liberal Studies, the Master of Liberal Studies, the Master of Humanities. You will need to develop a system that is right for you.

Conclusion

I began by saying that the project I have just described and commented upon was a strange complex of idealism, realism, and cynicism. That last word probably deserves a final comment. I do not mean to suggest that there is anything cynical about embarking upon the development of a graduate liberal studies program or about graduate study in the liberal arts and sciences. Rather, I mean that however clear it may be to you and to your planning committee that your motives are pure, those who watch you at work will probably view your project as yet another attempt to support certain departments over others, or even to create a new bureaucracy. And they won't be entirely wrong.

As final recommendation, then let me suggest, from the outset, that you be clear about all of your motives and that you admit that the cynics in your midst probably have some points to score. Such an admission will in no way diminish the rightness of your undertaking, but it may say you from sounding righteous. This isn't quite what he meant, but we all stand to be reminded that even Cardinal Newman (or Cardinal Newman especially) realized that righteousness was not part of the Idea of a University.

H. Ramsey Fowler, is Dean, University College, Memphis State University, Memphis, TN.

LEAR'S FOOL ADVISES THE BANKERS: LIBERAL STUDIES FOR THE NON-TRADITIONAL STUDENT

W. Clark Hendley

The situation of American higher education in the last two decades of the twentieth century is filled ironies. On the one hand, our educational community has never been larger or stronger: since 1940 our public university system has grown from about 800,000 to nine million students. On the other hand, we have produced so many Ph.D's in certain fields that the sprawling educational establishment could never absorb them all. Or, consider that this growth came largely as a result of two phenomena--a rapidly expanding birth rate and a generous compensation package for military veterans returning from World War II, the Korean War, and the Vietnam War. And yet now the baby boom is over and the only war comtemplated would be the kind of war which would have no veterans--and no survivors.

There are ironies in the type and scope of curricula as well. Universities have grown and new universities have been created in the traditional model for universities--research-oriented institutions organized on rigid disciplinary lines. The research output of many universities, however, is low to non existent, and even the current plethora of scholarly publications cannot handle but a small percentage the scholarly community sends them. And students educated by our universities in recent years are increasingly expressing dissatisfaction with an education that now seems to be narrow, inadequate, or irrelevant. And thus we are seeing some of these students returning to us in the 1980's.

The impact of the greatest irony is yet to be felt. Universities are not going to grow in the ways that we as today's educators have experienced ourselves. We have been trained by this system, but the future will not be a repetition of the past. The future of American higher education will show that:

1) no new universities will be created: the boom has already sounded;
2) some universities will fold or be consolidated, especially small, weak, or underendowed institutions;
3) some universities will be able to remain just as they are because of their prestige or longevity;
4) most universities will change to adapt to new conditions and educational needs of the nation.

It is to the planned and unplanned--but inevitable--changes that I wish to address my comments with particular reference to my own institution.

Americans have come to expect growth in all areas of life--the gross national product, real income, the amount of grain that can be harvested from an acre of land, the size of universities. Many, of course, equate size with excellence, and land grant campuses of state universities especially have in some cases developed to the size of small cities. In the post baby boom era, there will not be enough 18-21 year old bodies to fill the dormities and classrooms build for their predecessors. Thus the only growth must be in non-traditional programs, extention divisions, and continuing education opportunities, and this leads to one final irony, the instructors for these programs--necessary for their own survival--are both ill equipped to teach in them and often contemptuous of them.

Our colleagues are ill-equipped when they have been educated in a pure discipline and identify the significance of an educational enterprise solely by how it fits with that particular discipline. The citizen who takes a continuing education course or the student who returns to a Baccalaureate program after a several year hiatus may not feel her needs are met by a course in medieval history, eighteenth-century literature, or the Venetian school of painting. But we as academics respond that we have scope and a vision of how these disparate pieces fit together, and we argue, with ample justification, that the courses do coalesce into a scheme of liberal studies and that the departmental structure serves the university well.

Potential instructors for various non-traditional programs usually regard such programs with responses that range from hesitation to distrust to contempt. The reason for this is, once again, the traditional department-oriented, research-centered universities in which we have all been educated. The universal goal of new Ph.D's is to graduate out of the teaching of composition courses, service courses, general education courses, and move on to that part of the curriculum restricted to departmental majors. The penultimate goal is a much-coveted graduate seminar and the ultimate of course, supervision of a doctoral dissertation. It is no wonder that when we have accustomed ourselves to think in these terms, the prospect of creating enrichment, continuing education, interdisciplinary, or innovative courses may not fill us with glee.

Thus we arrive at a stand off: universities are not going to grow (or even remain steady) if we continue to hold shop as we always have, but faculty are convinced that there are important philosophical, historical, and pedagogical reasons for continuing as we have in the past.

The University of Missouri-Kansas City has not solved all of the problems I have sketched and it has not resolved the tensions to which I allude. But it is a university which is old enough to be traditional and young enough to change, large enough to allow a diversity of programs but small enough that programs don't get lost in the bureaucratic structure. It is the combination of new and old, large and small that has allowed UMKC to become a leader in higher education in the midwest. To illustrate, let me mention the university's handling of medical and dental education. UMKC has had a dental school since its foundation over 50 years ago--a traditional, post-baccalaureate dental school. The medical school is more recent, a small, carefully-selected student body chosen immediately out of high school for the six year BA-MD program. Because of the success of the medical school, the dental school in the fall will compelment the post-baccalaureate program with a small class of 18-year olds who will embark on their own six-year BA-DDS program. The innovative approach has proven itself in one unit and has stimulated creative opportunities in another: not to the exclusion of the traditional system but to its augmentation and enhancement.

The primary developments which I would like to elaborate on, however, address the two major concerns of this conference: non traditional and interdisciplinary, and the exciting work in this area is taking place in the College of Arts and Sciences, the largest unit in the university and chief source for undergraduate programs. The three principal non-traditional thrusts of the College are all interdisciplinary, and all three coexist alongside traditional offerings: cluster courses, the PACE program, and the Bachelor of General Studies degree.

Cluster Courses

Several years ago the National Endowment for the Humanities agreed to fund a program entitled Integrated Studies in the Humanities, a new approach for this institution to undergraduate interdisciplinary instruction. The NEH grant provided the means for faculty members in different disciplines to choose cross-disciplinary themes to be the focus for new courses in our curriculum. The university's commitment to NEH was that after the grant had expired, we would make these courses a part of our regular College offerings, which we have done.

The NEH grant allowed faculty to be compensated for the development of a cluster course and provided funds for a consultant for each course. Typically two or three (and occasionally four) faculty members are involved in the design of a cluster course, which has a thematic or descriptive name, such as "Continuity and Change in the American City," "Images of the Human Body in the Renaissance," or "Radical Change since 1945." Though there is no one preferred model of how cluster courses work, usually these classes will meet part time by discipline and part time in a meeting of the whole. For example, I have been involved in a cluster course called "Peoples and Communities in Western Civilization," taught with a colleague from Art History and one from the Department of History. The course has three numbers: English 200CG, Art 200CG, and History 200CG. A student may sign up for this, the only sophomore-level cluster course, under the rubric of English, Art, or History. The three sections of the course meet individually at the same hour during 2/3's of the class meetings; about 1/3 of the classes are held in common. The reading lists for the three sections all reflect the discipline of the instuctor, but a number of the readings are common to all of the students. History students learn quite a lot in our joint meetings about the uses of a literary text from me, a professor of literature. But in their History section they have an opportunity to apply a literary text to that discipline, and learn, for example, how Hard Times by Charles Dickens can be an invaluable resource in understanding Victorian society.

Cluster courses have been a source of great stimulation for the faculty in the College of Arts and Sciences. They have given faculty the opportunity and the permission to collaborate on a project together; they have served to form collegial allegiances where there were few on our diffuse commuter campus. They have stimulated research projects, and there is at least one collaborative book in progress as a result of a team-teaching effort. Our faculty has recently recognized the value of the cluster project officially by adding an upper-level interdisciplinary course to the requirements for graduation from the College.

There are several factors which figure in to the success of the cluster courses in addition to their intellectual challenge to the faculty. These courses are regular departmental offerings: they are approved by the appropriate departmental committees before they go to the College Curriculum Committee. When students sign up for my section of "Peoples and Communities in Western Civilization," the English Department receives the student credit hours. No faculty teach cluster courses as an overload; these courses are regular departmental offerings and credited just as any course is. The director of the cluster courses has worked out a schedule of rotation for cluster courses with the advice of college chairs, so faculty, chairs, and director will all know when a specific course is to be repeated.

The B.G.S. Degree

The most recent degree in the College of Arts and Sciences is the Bachelor of General Studies, instituted only this decade. The official catalogue explanation indicates that the degree is for "individuals who seek scientific literacy, understanding of the social sciences, and appreciation of the humanities. This alternative to the B.A./B.S. degree programs also is designed for individuals who do not want to commit themselves to a specialty; for individuals whose aspirations are not served by a traditional major; for individuals who do not plan to pursue graduate work in a traditional disciplinary study; and for individuals who desire maximum flexibility in course selection." This is an accurate explanation and yet it does not directly address the major clientele for general studies: the non-traditional student.

National statistics reveal two indisputable facts: 1) almost half of all current college students are over 25, and 2) almost half attend school part time. Americans may still hear "college student" and imagine an 18 or 19 years old on a residential campus in a small college town, but we must do all we can to erase that image if it comes to our minds. Today's student is more likely to be going to school part time while working part time and juggling responsibilities to spouse and even children. And many in this group do not find the traditional B.A. or B.S. degree satisfactory to their needs.

The program of liberal studies that the modern university inherited from the Middle Ages was originally intended to turn out educated people. Increasingly as the modern university grew, adding work-oriented baccalaureate programs in area such as business administration, engineering, and pharmacy, liberal arts departments watched enrollments decline and feared they were missing a boat that was sailing without them. The result was for many departments to promise that they were not only giving a liberal arts education but also professional or pre-professional training. And this philosophy switch leaves the non-traditional student somewhat isolated. If a major in political science is touted as the ideal preparation for law school, how does this affect the non-traditional student who finds political science fascinating but who already has a career and no intention of pursuing entry into the legal profession?

Many of our College faculty were originally distrustful of the BGS degree and expressed their reservation that it would initiate a two-track system--a less rigorous alternative to the traditional B.A. and B.S. for the marginal student. The scoffers are quiet today, for the BGS has not replaced the B.A. and B.S. as the preferred degrees in the College, and BGS students regularly qualify for graduation with distinction, Phi Kappa Phi, and other academic honors. Most importantly, the degree is meeting needs that were not being met for non-traditional students, and ironically for the traditionalists who feared this was a radical departure from the central domain of the liberal arts, the degree has brought the curriculum closer to the medieval model than it had been with the department major-oriented system.

The PACE Program

The Program for Adult College Education is my university's attempt to provide a workable delivery system for the needs of the non-traditional students. The program structures courses so that it is possible for individuals with full-time work or home responsibilities to complete a bacalaureate degree in a reasonable time period. PACE treats the major themes of the liberal arts and sciences in integrated "blocks" of courses-a cluster of three four credit-hour courses on a common theme. The three courses--a modified self study course, a night class which meets one evening per week, and a weekend course that meets one weekend per month--are structured around a topic so that the material covered in one course is relevant to the material covered in the other two. The goals of this approach are to reduce fragmentation in an idea of knowledge, to bring an interdisciplinary of integrated approach to the topic under consideration, and to make the educational experience more personally meaningful.

PACE, too, was greeted with skepticism by many College faculty. They feared the students would be inferior, the instruction shoddy, and the program inconsequential. None of the three fears has been realized, and only the most obstinate in our faculty refuse to acknowledge the strength of the PACE program today. What the PACE program has provided, however, has more than justified the time and effort it took to put a markedly different approach to baccalaureate education in place.

To begin with students, the PACE program has provided an opportunity for working adults to acquire a meaningful degree in a reasonable amount of time. Prior to the institution of this program, degree-seeking students employed during the day could take at best six hours per semester--and be away from home four nights per week: from high schol t baccalaureate degree in ten years. The PACE program has given individual faculty members the opportunity to develop new teaching and research areas, and because we have been able to fund the creation of new blocks, we have likewise been able to reward faculty for creative course development. Since many PACE blocks are interdisciplinary, we have given faculty another opportunity to work with their collegues and have thus helped stimulate the cross-fertilization of ideas which is necessary in a university.

There are three important characteristics of the programs in the College of Arts and Sciences that are crucial to their success. First, cluster courses and PACE courses are valued by the college administration. These courses are not seen as temporary or irregular. The opportunities and challenges provided by these programs have stimulated some of the finest College faculty to teach in them. The College administration never considered farming out such intellectually-demanding assignments to part-time lecturers. Second, these courses count as part of a faculty member's regular load. To teach a cluster course or participate in the PACE program one does not need to teach an overload so that research productivity has to suffer. And third, faculty have received extra remuneration for the additional demands of conceiving and developing innovative courses, so participating faculty can feel they have benefited two ways--financially and intellectually.

The developments we have made at UMKC lead me finally to the Fool in Shakespeare's King Lear, the inspiration for my title. American education in the past two decades has become increasingly job oriented as students expressed their interests by the majors they selected. Liberal arts majors have declined as students opted for business administration and a regimen that would prepare them for the "real world." As a result of this trend nationally, the humanities have suffered, and today we read the deliberations of various commissions formed to address the problem of this decline.

One of the most significant effects of this shift in American university curricula and degree choices is that we have many citizens who have been away form the university for a decade or so now beginning to realize th eomissions in their education. These bankers, insurance underwriters, accountants, engineers and the like enroll in Masters of Liberal Arts degree programs or attend professional conferences which attempt to remedy their deficiencies. Recently a conference was held at a university near me on "Business and the Humanities. Recently a conference was held at a university near me on "Business and the Humanities." There executives met (perhaps for the first time) the Fool in King Lear and heard this magnificent literary character advise the king to

Have more than thou showest,
Speak less than thou knowest,
Lend less than thou owest,

Ride more than thou goest,
Learn more than thou trowest,
Sit less than thou throwest;
Leave thy drink and thy whore,
And keep in-a-door,
And thou shalt have more
Than two tens to a score. (I, iv, 116-25)

Good advice not only to the king but to modern-day bankers as well. The ideal time for the initial encounter with the solid liberal arts curriculum is the undergraduate years, not short courses and conferences. We as educators are obliged to meet these needs on two fronts: programs for adults with specialized college degrees or no college degree who recognize the importance of the liberal arts, and interdisciplinary courses for our undergraduates who seek no only employment skills but also a meaningful education during their undergraduate years.

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PLANNING A NEW LIBERAL STUDIES CURRICULUM

Joanna Schneider Zangrando

It all began in the summer of 1982 when Eric Weller, Dean of the Faculty, invited ten faculty members to join him in forming a month-long study group. His charge was that we meet every day to examine both the calendar and the curriculum and to devise a set of recommendations for changing, or for retaining, either or both. This was a grand opportunity for faculty, too busy during the regular academic year, to devote undivided attention to what, at Skidmore College, they have traditionally guarded as their preserve: the academic program.

The Dean had not, of course, arbitrarily convened the Summer Study Group. Rather, he did so out of his conviction, and that of certain of the faculty, that the College had instituted its 4-1-4 calendar in the 1960s when an intensive Winter Term learning experience seemed an appropriate response to student interests and demands for an in-depth, intensive period of study. So, too, the curriculum, with its distribution requirements of three courses in the Humanities, three courses in the Social Sciences, and three courses in the Sciences (two of them laboratory sciences), seemed suited to an earlier student generation. There was a good deal of informal evidence in the form of student and faculty complaining about the perceived lack of "rigor" in the on-campus January courses and the growing sense that students were not making wise use of their time during the month to suggest that a serious evaluation was indeed in order. Still, despite growing disenchantment with the calendar, there were some departments that viewed the month of January as the perfect time for students to study abroad, to student teach on a fulltime basis, or to secure an internship at a museum, historic preservation site, or local newspaper. And, there were some faculty who were convinced that students would not take courses in all of the disciplinary areas unless they were required to do so. In reality, there seemed no particular logic in students' selections of courses within the three distribution areas. They seemed motivated in their choices merely to "get the requirements out of the way." It was not, then, an actual crisis that prompted the Dean to form the Summer Study Group, but a genuine concern that it was time to review the academic program and to ascertain whether it was meeting the needs and expectations of students and faculty alike, in the 1980s, not the 1960s and 1970s.

Those of us in the Summer Study Group decided at the outset that we would first concern ourselves with issues concerning the curriculum; the calendar was a separate topic to be considered later. What we found ourselves mentioning in passing during coffee breaks the first couple of days became topics for heated discussion as the weeks progressed: lack of coherence in the distribution requirements; disjuncture between the curricular and the co-curricular life of the college; lack of a common body of information that we could expect of all entering freshmen--in particular, a familiarity with cultures other than their own, and sensitivity to historical periods other than the present. We deliberated over ways to encourage students to take courses in the creative and performing arts, traditionally strong at Skidmore, and to confront in at least one formal course the relationship among science, society, and human values.

We asked ourselves what we had found most valuable in our undergraduate liberal education experiences. Because we had the luxury of daily deliberations, we could ask and hope to devise some answers to the question: What are the essential components of a liberal education true to the past, appropriate to the present, and preparatory for the future? We incorporated our responses into a set of recommendations for the Committee on Educational Policies and Planning. That committee submitted a proposal containing our recommendations to the entire faculty and, in the Spring of 1983, the Skidmore faculty approved, though not by a vast majority, both a new calendar and a revised curriculum. A semester calendar replaced the 4-1-4 calendar, and all-college requirements replaced distribution and Winter Term requirements. The internship option moved from January to late-May and early June.

What, specifically, did the faculty agree to in adopting the new calendar and curriculum; much more than anyone could have anticipated. The all-college requirements include: Foundation courses in expository writing and quantitative reasoning; Integration courses in the fourpart Liberal Studies program; and Exploration courses in the laboratory sciences, the arts, foreign languages, and non-western cultures. The foundation, integration, and exploration categories directly reflect the work of the Summer Study Group.

The "jewel in the crown" of the new curriculum, as the Dean calls it, is the Liberal Studies sequence. It is this integration component with which I am most familiar and which I will use, therefore, as a "case study" for planning a new curriculum.

The objectives of the Liberal Studies courses, as approved by the faculty in April of 1983, were:

1. To introduce students to the fundamental questions to which the academic disciplines respond.

2. To introduce students to the academic disciplines themselves in the context of their interrelationship.

3. To provide a common experience for all students at the beginning of their college years, so as to foster the coherence of the college as both an intellectual and social community.

The Liberal Studies sequence of interdisciplinary courses consists of four parts. The first part, Liberal Studies I: The Human Experience, is the foundation for the sequence. It is a team-planned, team-taught course required of all freshmen. After completing this course in the fall term of the freshman year, students must take one course in each of the following by the end of the sophomore year:

Liberal Studies II: Cultural Traditions and Social Change (3 semester hours)

The processes by which cultures or societies as a whole (Western or non-Western) or their institutions change over a broad period of time. Courses in this category vary in their attention to a particular aspect of a culture or society, or to a particular feature of the interaction of individuals with their culture or society.

Liberal Studies III: Artistic Forms and Critical Concepts (3 semester hours)

The essential properties of artistic form and expository prose, examined as expressions of human reason and sensibility. Courses in this category take "criticism" in its broadest sense, as the process of making judgements. Critical texts selected may either be about the art itself, or about some theme also explored through the art.

Liberal Studies IV: Science, Society and Human Values (3 semester hours)

The role of scientific discoveries or theories in shaping or meeting the needs and expectations of individuals and society. Courses in this category vary as to the particular society or time period examined.

How did the faculty devise the sequence of courses? To begin, in the fall of 1984 the Faculty Council appointed an interim Liberal Studies Committee to prepare guidelines consonant with the faculty's decision to adopt the new curriculum. This committee spent the fall and winter terms preparing a set of guidelines for each of the four parts of the Liberal Studies sequence. Early in the spring, the committee distributed the guidelines to faculty who had indicated a desire to teach in the LS Program, held discussions with the faculty concerned with each part of the sequence, and in February shared with the entire faculty the agreed upon guidelines prepared by the committee of faculty, student and Administration representatives. At the same time, some members of this interim Liberal Studies Committee worked with the Administration on a grant proposal submitted to the National Endowment for the Humanities. This proposal sought support for a series of faculty workshops, to begin in the summer of 1984 and to continue for two or three years thereafter, to plan the Liberal Studies curriculum, in general, and to devise individual courses, in particular. The Endowment did fund the planning and implementation phase of the foundation course, Liberal Studies I, for a three year period.

For six weeks in May and June of 1984, forty four faculty who had responded to the Dean's invitation to join the workshops to develop the Liberal Studies curriculum met on a daily basis--first as a large group and then in the four LS component groups. Outside consultants presented programs on: the teaching of writing, the integration of scholarship on women into the curriculum, methods of team and co-teaching, and the teaching of reading. After the first week, faculty in the four parts of the LS sequence met in their respective groups, each under the coordination of one faculty member, or in the case of LS I, co-coordinators. During the sixth week of the workshops, the entire group of forty four met together to share information on course design and to present summaries of actual courses that had developed through the process of group discussion, suggestions, revisions of drafts of course descriptions and syllabi, and generally shared input. Though an exhausting process, the opportunity to work with other faculty in a truly sharing and exchange-of-information climate proved to be a bonus not fully appreciated at the outset. The faculty at Skidmore College takes particular pride in "claiming'' the curriculum as its preserve. The summer workshops underscored this, as has the delivery of the new courses this past academic year.

A bit more complicated than the individual workshops devoted to LS II (Cultural Traditions and Social Change), LS III (Artistic Forms and Critical Concepts), and LS IV (Science, Society and Human Values), where faculty prepared individual courses of their choosing, albeit from an interdisciplinary perspective as mandated by the guidelines, was the LS I workshop. This course, after all, was not only an interdisciplinary course, but it was to be team-planned and team-taught. Seventeen faculty from over ten disciplines met for six weeks to devise a course already modestly titled 'The Human Experience." What does it mean to be human? we asked ourselves, as the BIG question. Less grand questions followed: how do human beings perceive, think, learn, communicate; what is the relationship between mind and soul; how do individuals, species, entire cultures develop; how is the self related to the larger community, what values and responsibilities are concomitant with freedom; how do institutions ensure or limit actual freedom; why do human beings create works of art, what status distinctions do societies make and for what purposes? What these questions suggest is that the LS I faculty decided to focus on concepts, ideas, issues as the driving force of the course. We were determined not to replicate "great books course" models from the 1950's, nor "great, white, Western male thinkers" courses. We were committed to devsing a common learning experience for incoming freshmen that would emphasis ideas and concepts and habits of inquiry and exploration of explanation; we visualized a course in which students and faculty would share in the process, or activity, of learning, beginning with an examination of what constitutes "education" in the first place. We realized that the course we created would be a compromise of our individual disciplinary approaches and body of information, but that it would be the result of a shared consensus openly arrived at, not forced upon any one of us. At the end of six weeks, we had devised a conceptual framework for the course, had adopted a "delivery statement" (two large lectures a week to three groups of freshmen of approximately 200 each; two discussion sections a week of approximately 17-18 students; a "keynote speaker" in the fall, and six evening events of speakers, films, presentations), and had begun to identify readings and other course materials. An important decision we made was that there was no one text available that incorporated the conceptual approach that we wished for the proposed LS I course; therefore, we decided that we would compile readings--with introductory comments and questions--that would be the course text. This recommendation, in addition to several others, including the request that an overall coordinator for Liberal Studies be appointed, we presented to the Dean of the Faculty in a 52-page workshop report.

Another important recommendation the LS I faculty made to the Dean was that the second set of summer workshops for LS I actually become a continuation of the 1984 workshops; that is, faculty in LS I would continue to meet during the fall of 1984. It seemed counterproductive to replicate in the summer of 1985 the process of fashioning a course already underway in many important ways. The selection of materials for an LS I "READER" demanded a lenghty lead time to secure whatever copyright permissions might be necessary. In addition, the LS I faculty did not want to lose the momentum generated in the summer of 1984. The Administration, and the Endowment, agreed to our request. We continued to meet in the fall and spring terms,.and recruited seven additional faculty to work with us. By January, we had narrowed our list of readings and had clarified the topics and treatment of the twenty-six large group lectures. In the spring of 1985, the Adminstration and the Endowment again agreed to a request of the LS I faculty that we engage in a "dress rehearsal" of the LS I course. Because this would be the equivalent of teaching another course, and then some, the funds that would have been expended on another summer workshop for LS I faculty were instead allocated to us during the spring course run-through. The faculty had the good sense to invite students to join us in our venture, and seventeen, ranging from freshmen to juniors, did so. We wanted to ensure that they would be on campus in the fall of 1985 when we actually delivered the LS I course for the first time. (As it turned out, about ten of these students served as invaluable LS I tutors for the course.)

Faculty and students met twice each week during the spring, 1985, term. At each meeting, a faculty member presented the essence of what would be a lecture in the course, made links to previous lectures and to the readings, and attempted to situate the presentation within the larger context of the goals of the humanities-based course, the introduction and foundation to Liberal Studies. After each presentation, faculty and students engaged in a critique, and made final decisions regarding the proposed readings for the topic of the presentation. Meanwhile, subcommittees on course evaluation, evening presentations, course requirements, grading, and the like continued to meet and to share recommendations with the entire LS I faculty. By the end of the spring term, the faculty had devised a course and agreed upon all of its components. It was, and is, truly a team effort! I, as Coordinator of the Liberal Studies Program, and of LS I, prepared the syllabus for the course and compiled the LS I READER.

It is inconceivable that the planning phases of the course, begun in the May-June 1984 workshop, could have resulted in the course finally devised and delivered to 627 freshmen in the fall of 1985 without all of the careful, continuing planning and meetings from September through May. The summer workshop goals were met: a humanities-oriented course that is the foundation for the new Liberal Studies curriculum, a READER for the course, a core of faculty committed to interdisciplinary and team-planned and team-taught efforts. The faculty in LS I managed to achieve this while carrying regular teaching loads and serving on a host of committees beyond those relating to the new curriculum. They managed to maintain a wonderful sense of esprit and good will about the course and about the opportunity to work closely with peers, and to admit to one another and to demonstrate in weekly meetings that they are not, indeed, experts on every topic. My impression is that the faculty in LS I, as well as in the rest of the Liberal Studies courses, views the experience of working together with faculty from disciplines across the College toward a common purpose as refreshing, rewarding, and worthwhile. The Administration, too, has continued its support for the LS faculty. In the spring and summer of 1985, the College funded workshops for interested faculty in LS II, III, and IV.

The planning and the meetings continued while the faculty taught the courses in the Liberal Studies sequence. The faculty voted to establish a permanent Liberal Studies Committee to work with individual faculty who wish to offer a Liberal Studies course, and to serve as a "first approval" committee for LS course proposals. Four of the members elected act as coordinators for each of the four segments of LS. They work with individual faculty members, initiate revisions of the guidelines if necessary, and assist the overall Coordinator of the Liberal Studies Program in identifying potential faculty and courses for LS. The Liberal Studies I faculty offered the course in the fall and met on a weekly basis to discuss lectures, possible discussion section topics, examinations, papers, and other details of the course. We devised a course and faculty evaluation form and have used the results in our assessment of what we had done, and what we plan to do next fall. During the spring semester we met on a weekly basis to discuss everything from totally revising the course, to merely making changes in the readings, the lecture topics, the course requirements. Despite the "dress-rehearsal," we found that the course was a bit too ambitious. While we have not deviated from the conceptually-driven nature of the course and the emphasis on shared learning and the process of learning as an active engagement, we have deleted the amount of reading and are, consequently, revising the LS I READER. After all the hours spent working on the course, the exhaustion, the seemingly endless attention to details, faculty who are teaching in Liberal Studies I are still talking to one another; that is some measure of achievement. In many respects, devising the new Liberal Studies curriculum has been an important means of forcing us to talk to one another--to our delight.

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EXTERNAL REVIEW: A MECHANISM FOR MONITORING THE CONTENT OF ADULT AND CONTINUING EDUCATION OFFERINGS

Raymond W. Campbell

Introduction

Undergraduate courses taught by part-time faculty and offered to adult learners in evening and weekend programs typically cover a wide spectrum of disciplines. While the directors of such programs may feel they can accurately assess the instructional process of each course, they often do not have the expertise to evaluate the quality of each course's content. Consequently, they may depend upon the full-time academic departments to monitor the quality of the content of these courses. However, the academic departments tend to rely on their careful screening of applicants' credentials as a mechanism to monitor course content. The underlying assumption is that if you hire a well-qualified faculty member, provide that individual with the parameters of the course (goals and objectives), she/he will automatically teach the right material. Very seldom do traditional faculty voluntarily evaluate the content of either their full-time or part-time colleagues' courses. And in those cases where they do, the process still leaves unanswered the question as to whether or not a college's own "experts" would be accepted as legitimate evaluators -- especially by outside accrediting agencies and the public.

Therefore, in an effort to determine if the content of Thomas Jefferson University's evening and weekend courses, offered by the College of Allied Health Sciences' Department of General Studies, is comparable to similar offerings at other colleges and universities, faculty members from local-area colleges were invited to review the content of these courses. The use of such external evaluators is a familiar concept in education, especially in regional and program accreditation processes. These faculty reviewers were selected from a list of prospective candidates provided by the Middle States Association of Colleges and Schools. On one or more occasions, they had previously served as members of accreditation teams. For the most part, the candidates on this list resided in the Philadelphia area and were noted for their subject-matter expertise. This review began with those courses that are most frequently offered from term to term and then moved to those that are offered infrequently.

Purpose

The purpose in establishing such a review was based on the belief that while the courses, and the faculty teaching them, are of excellent quality, the College could benefit from the observations of the external reviewers. Information gathered by the reviewers could be used to help adjust the General Studies courses to their setting and improve them. An implicit assumption of the Chairman was that courses did not have to be weak or deficient to become stronger. It should be mentioned that this external review was also part of a larger departmental review which included surveys of current students and alumni, the development of a department management manual, and a consultation visit by a member of the Association of American Colleges' Advisory Service. In order to avoid conflicting purposes, the objective of the external review was limited to content improvement. It should also be pointed out that the focus of this review was on individual courses, not degree programs and/or their compatibility with the mission of the institution.

Process

The announcement of the external review came at the opening fall faculty meeting. The faculty were sent a copy of the statement of purpose and a letter indicating when each course would be under review. In their letter, faculty were asked to cooperate in the collection of data and to seriously consider the information that would be supplied by the external reviewers.

A contract was prepared for each reviewer. The contract contained the four evaluation questions, the name(s) of the course(s) to be reviewed, the deadline date for completion of the work and a brief description of the format of the final report. The Chairman provided reviewers with copies of syllabi, available handouts and exams, the names, addresses and phone numbers of the part-time faculty, class locations and time, a map of the campus, and a background paper about the Department.

In light of the purpose of the external review, reviewers were asked to evaluate the content of the courses against their objectives as stated in the syllabi and course descriptions as stated in the College catalog. Reviewers were required to submit a written report at the conclusion of their assessment but no later than the end of the term in which the assessment was conducted. They examined the syllabi, available handouts and examinations, and conducted visits to the respective classes.

The information gathered in this review was for internal use only. Reviewers were asked to address the following questions in writing.

1. Are the course objectives appropriate for the content and level of this course?

2. Do the course assignments/requirements lead to attainment of the course objectives?

3. What are the major strengths of this course?

4. What are the major weaknesses of this course and how can they be improved?

The assumption underlying the above questions is that in order to improve a course, it will be necessary to understand how well a course is meeting its objectives, given that they are appropriate to the level and nature of the course. This review was conducted to inform the part-time instructors and appropriate administrators about the objectives and activities of particular courses. It was not designed to yield irrefutable, generalizable knowledge. Rather, the motivation was to find a method that makes manageable the jobs of:

1. Describing what is taking place in General Studies courses, and

2. Producing a description that most people will accept as accurate.

Because this project was supported with existing departmental funds, a low-cost operation had to be established. A modest honorarium was offered to each prospective reviewer. For most courses, this amount was acceptable to the prospective reviewer. In fact, in several instances, faculty indicated they would do it as a professional courtesy and consider it as part of their community service. In specialized course areas, however, (e.g., head and neck anatomy), it was often necessary to pay a higher stipend.

External reviews such as this can provide positive and negative feedback to part-time faculty. Unfortunately, evaluations of any kind are often perceived as only providing the latter. In this assessment, reviewers were instructed to include positive as well as negative remarks.

Effects

Copies of the external reviewers' written reports were shared with the part-time instructors by the Chairman. This information was discussed with a view toward making General Studies courses more appropriate, effective and appealing for the students.

While it is still too early to draw any firm conclusions about the impact of the external review, it is possible to note some immediate beneficial effects. In several instances, part-time faculty revised the content of their courses. Communication between the part-time faculty and the Chairman increased in frequency and helped to clarify each party's understanding of a particular course. On the negative side, some of the part-time faculty said they felt slighted because their own expertise was not relied upon for an assessment of a particular course's content. This was particularly true for business faculty who were well-established professionals. In a couple of instances, part-time faculty argued convincingly as to why the suggested changes of an external reviewer should not be adopted. The most frequently cited concern here was that the external reviewers had not fully taken into account the unique nature of the department and its students. For example, many of our students already hold degrees in a health professional field and take business and/or computer science courses to enhance their job performance, but are really not interested in earning a business and/or computer science degree. Several of the part-time faculty teaching in these areas felt that some of the reviewers suggestions were more appropriate to colleges offering degrees in business and/or computer science than to a evening school housed within a medically oriented university.

Conclusion

The external review procedure at Thomas Jefferson University is a financially manageable one which provides instructors with constructive feedback about a variety of factors which may affect the content of their courses. As competition for adult students intensifies, adult and continuing education officers will need to closely monitor the quality of their offerings. Through the establishment of such monitoring mechanisms as an external review program, an institution can maintain the high quality of its existing courses; a quality marked by a high level of responsiveness to changing environmental factors.

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ASSURING QUALITY EDUCATION IN NONTRADITIONAL PROGRAMS

Lois H. Neuman

Abstract

Analogies exist between the growth of the traditional and the nontraditional educational movements. One of the noteworthy similarities is rapid growth coupled with the development of standards designed to assure quality. After making a brief comparison of these two educational movements, this paper addresses directions for the future taking into account history, demographics, and current socioeconomic trends. Attention is given to dwindling resources, competition for students, norms in the nontraditional delivery system, the need for cooperation, the role of accreditation, resistance to change, and accountability for quality. Existing guidelines for quality assurance are reviewed.

Comparison of Two Educational Movements

In the United States, at the turn of the century, the population increased (Page, 1910), more money was available to the working class (Butts, 1939 rpt 1971) and education for the masses in higher education was becoming a reality (Geiger, 1963). As college became accessible, more people attended, but their qualifications varied. Academic standards were needed without reverting back to a closed system for the elite and wealthy.

Need for Standards

There was general agreement by college educators and the general public that reforms and standards were needed, but the issue of what kind and implemented by whom was unclear. What became clear was the struggle for control over higher education institutions and the fear of control by government. After much rhetoric and posturing by various associations representing special interests, it became obvious that educational control and guidance could best be provided by the colleges themselves in the form of accrediting agencies. With colleges establishing and enforcing the standards, they would be protected against arbitrary actions of government (Zook and Haggerty, 1936).

Thus, accreditatior emerged as the American form of control over academic standards, as the means of assuring better education for the public, and of self protection against pretentious, shoddy, even fraudulent institutions which often called themselves colleges or universities (Selden, 1960).

This accreditation process applied to traditional institutions. With the emergence of the emphasis on postsecondary education, as opposed to higher education, the nontraditional education movement gained momentum. Variations that are considered nontraditional delivery systems include external degrees, off-campus or outreach programs, competency based education, mediated instruction, learning contracts, the weekend college, college-sponsored experiential learning, educational "brokering", the awarding of degrees and credits by examination, and the assessment of prior learning from life and work experience (Andrews, 1983). All of these were directed toward the increasing numbers of adults who were returning for additional education.

These delivery methods are used for nontraditional education which, according to Andrews (1978) is best defined by the Commission on Nontraditional Study (1973):

> Nontraditional study is more an attitude than a system and thus can never be defined except tangentially. This attitude puts the student first and the institution second, concentrates more on the former's needs than the latter's convenience, encourages diversity of individual opportunity rather than uniform prescription, and deemphasizes time, space, and even course requirements in favor of competence and, where applicable, performance. It has concern for the learner of any age and circumstance, for the degree aspirant as well as the person who finds sufficient reward in enriching life through constant, periodic or occasional study. This attitude is not new; it is simply more prevalent than it used to be. It can stimulate exciting and high-quality educational progress; it can also, unless great care is taken to protect the freedom it offers, be the unwitting means to a lessening of academic rigor and even to charlantanism.

Similarities

There are similarities between the growth of traditional and nontraditional education. Both are influenced by economic changes. In the early 1900s, more money was in the hands of the working class and colleges became accessible to these new learners and their dollars. With the influx of immigrants and the working class came the dilemma of qualifications. All these people came with different backgrounds and levels of formal learning. Eventually, traditional colleges identified the need to establish standards (Butts, 1939 rpt 1971).

In the 1970s and projected into the 1990s, there has been and will continue to be a decline in the number of traditional high school graduates and an increase in adult learners returning to postsecondary education. Competition for these students and scarce resources could detract from developing and maintaining standards or could lead to cooperation , sharing of resources, and attention to quality. If a lesson is to be learned from traditional education, standards will be needed. Right now the issue is what kind and implemented by whom.

Method for Evaluation

In the past, traditional institutions looked at structure (where learning took place) and process (how teaching was done) and were not as concerned with outcomes (what the student learned). More often than not, the concern was with quantitative measures such as student-faculty ratios, semester credit hours, full-time equivalents, number of credits required to earn a degree, credentials and reputation of faculty, costly physical plants and extensive library holdings. Nontraditional study placed primary emphasis on outcomes (what was learned) rather than on structure (where it was learned) and process (how it was taught).

More recently, in these times of consumer protection, limited educational resources, and concern about the quality of American postsecondary education, institutions are being held accountable for assessing the degree to which educational objectives have been attained. As a result of these concerns, there is the need for a method by which this assessment can be accomplished.

Educational Outcomes

This concept is certainly not a new one. During the 1970s, the Project to Develop Evaluative Criteria and Procedures for the Accreditation of Nontraditional Education (Andrews, 1978), recommended that the only way to evaluate a great variety of education forms and structures is to emphasize the results rather than the process. The recommendation was also made that accrediting bodies not have two sets of criteria, one for traditional and one for nontraditional institutions but give greater attention to educational outcomes in the total accreditation process.

The Self Study Assessment and Planning Guide for Postsecondary Education Institutions and the Adult Learner (1984) produced a system for self study which could be incorporated into the overall accreditation process or be used alone to ascertain the current effectiveness of institutions or a unit within the institution in serving adult learners.

Project Alltel, Assessing Long Distance Learning Via Telecommunications, co-sponsored by the Council on Postsecondary Accreditation (COPA) and the State Higher Education Executive Officers (SHEEO), supported the move towards developing outcome measures with standards and criteria for assessing distance learning via telecommunications. This project recommended institutions be given the responsibility of assuring educational objectives were being met by off-campus activities, including instruction delivered by telecommunications.

Studies are plentiful and many educators favor the movement towards emphasizing educational outcomes instead of structure and method, (Kirkwood, 1976, Keeton, 1980, Andrews, 1978, 1983, Silverman and Tate, 1980, Young, 1983, Kells, 1983). National panels, such as the NIE Study Group on the Conditions of Excellence in American Postsecondary Education have linked outcomes assessment with institutional improvement and quality (NIE Study Group, 1984).

Reasons for Slow Progress

Even with such strong support, progress remains slow. Three reasons contribute to this: control, type of assessment instrument and process, and resistance to change.

The Issue of Control

There are problems yet to be resolved regarding the accreditation of nontraditional programs in postsecondary education. What standards shall apply in determining whether an instructional activity is to be recognized as postsecondary education? What is the role of specialized/professional accrediting bodies and state licensing regulatory agencies? Will these agencies recognize nontraditional study? Will they allow curriculum changes that accept credits earned through nontraditional study. Specialized accrediting agencies are being urged to

> give particular attention to their standards or criteria for accreditation to assure that alternative approaches in specialized learning are encouraged where appropriate and that the accreditation process used is designed to assure quality of the education offered and the learning achieved (outcomes).(Andrews,1978)

The Issue of Assessment Method

There are many assessment instruments and processes from which to choose. The institution must be clear about what kinds of outcomes to look at and why. Choices include cognitive and affective outcomes, psychological and behavioral outcomes, within-college and after-college outcomes. These distinctions can combine and interact in many ways. Methodologies employed depend on the type of study being conducted. Bogue (1980) believes these difficulties bring on inertia and more excuses. Therefore, he encourages institutional researchers to undertake program evaluation with a blend of daring and caution and recommends "acting on the possible while awaiting perfection."

The Issue of Resistance to Change

Katz and Kahn (1978) recognize that resistance to change must be counted among the inherent dilemmas of human organizations. An organization that responds to every external signal would be no organization at all. On the other hand, an organization that responds to no such signal is also doomed.

In order to implement change, Bennis (1976) recommends that those who are affected be involved in the planning. This decreases the resistance to new ideas or approaches. The participants in evaluation activities must help to select the instruments and must agree that the instruments will provide answers to the questions they consider important. They must also be involved in interpreting the results and in discussing and deciding how the program can be modified to produce better outcomes (Pace, 1985).

Conclusions

The method recommended for assuring quality education in nontraditional programs is through evaluation of educational outcomes in the total accreditation process. This means statements of educational outcomes must be developed that are clear, precise, and lend themselves to evaluation. Participants in the evaluation process must select the methods of evaluation and must be actively involved in every phase.

By working together, traditionalists and nontraditionalists can promote learning and develop methods to assure quality in educational delivery systems.

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INSTITUTIONAL INTERDEPENDENCE AND QUALITY CONTROL IN NON-TRADITIONAL HIGHER EDUCATION

Thomas M. Rocco

Introduction and History

Empire State College proceeds on significantly different bases from the vast majority of American colleges and universities. Among the "alternative" programs of higher education developed in the surge of creativity in the late 60's and early 70's, it is one of the few with no fixed curriculum and a commitment to individualized education. There was no inclination (never mind intention) to revolutionize higher education, to transform the status quo in the State University of New York but this new institution was founded to provide a statewide experiment in college education which would endure beyond the enthusiasm of its founders and would be legitimized by its own registration and accreditation. The 63 other S.U.N.Y. institutions would continue to develop and offer their own classroom based programs and to conduct their own experiments. At the same time, Empire State College would cooperate with them and would share resources whenever necessary to reach underserved populations throughout the State and would provide individualized alternatives for college education for those who needed or wanted such alternatives, while of course assuring the academic quality of the education provided.

It had not been necessary to create so peculiar an institution. It had not been necessary to focus so sharply on the individual student; nor was it necessary to so de-emphasize fixed curricula. It was thought, however, that if this could be done successfully, it would probably benefit at least a growing population of adult students who desired to go to college and who could not or would not be accommodated by the traditional structures. It was also wisely thought that this new creation would have a better chance of survival and then success if its siblings felt some kinship for it and learned early on to work together with it to achieve the State's objectives. Hence, however different Empire State College is and looks from the other S.U.N.Y. institutions, it has been able to collaborate with them from the beginning to find cost-effective ways to provide individualized education for citizens of the State who want to go to college but not usually to a classroom and who usually cannot relocate in order to go to college.

The Contemporary Situation

To move the context for this discussion from the early 1970's to the present, (about 11,000 graduates later), let me refer to the S.U.N.Y. master plan, entitled "The Responsive University" as revised in 1984. After calling attention to the declining number of younger students and the rapidly growing number of working adults who are attending college, it says: "as more students engage in new patterns of post-secondary activity, they will require new kinds of learning formats and support services." (p.2) A bit later, in discussing the importance of location in the mission of S.U.N.Y. to provide access to higher education, the Plan says: "Increasingly, the University seeks to combine the diverse academic resources of several campuses to meet local or regional educational needs that cannot be addressed by a single institution." (p.5) Extending this idea a bit further, recommendation #8 states: "The University will continue to identify and respond to lifelong needs for learning, making use of cooperative arrangements among campuses and with other agencies to provide quality educational offerings in the most cost-efficient manner." (p.10) Finally, in describing Empire State College, the master plan clearly indicates the mission of developing inter-institutional programs in the following terms:

> Empire State College: Continued development of contract learning, assessment of prior learning, and community-based learning resources, with emphasis on alternative approaches including individualized and distance-learning modes. Development of structured independent study to reach the place-bound, handicapped, working adults, armed service personnel, and varied persons with special learning needs. Experimentation with mediated instruction, including video and computer instruction. Further development of collaborative undergraduate and master's level programs with other State University units and with industry, government, and social agencies; in such programs, emphasis on public administration, labor studies, business and management, human services, and liberal studies. (p.31, emphasis added) (1)

The Nature of the College

What is not specified clearly here is just how Empire State College goes about providing a college education on a daily basis for more than 6,000 students while developing and maintaining many inter-institutional relations. At the heart of the College, which has eight larger and more than thirty smaller locations throughout the State, are the full-time and part-time mentors creating with their students degree plans and working to find, structure and evaluate learning opportunities which give substance and meaning to these plans and which support the students in achieving their own learning objectives. The degree plans also provide the context for assessment of college-level learning and the transfer of any previously acquired college credit. There is an elaborate system of checks and balances and more "paperwork" than anyone cares to deal with. Very importantly, while deans and associate deans are looking over mentors' shoulders, they must also be reaffirming that the mentors are the creative force of the college who in collaboration with their students, generate recognizably good yet individually different college programs. While mentors do teach within their areas of expertise, their principal functions are in developing and evaluating degree plans and guiding students in the successful completion of those academic plans. They do this by identifying and working with appropriate tutors and evaluators; by cultivating community agencies, studios and laboratories for internships and other guided experiential learning opportunities; by creating "wrap around" studies using short course and other formal but non-collegiate learning activities, by cross-registering students at other colleges and universities, when that is allowed and fits the student's schedule, and by many other activities each of which must be described in a particular learning contract for that particular student.

In sum, expert Empire State College mentors serve the community by providing alternatives in individualized higher education and they use the community in many ways to create the opportunities for achieving this education. On a day to day basis, the College already has in place:

1) articulation agreements with most community colleges to assist in the integration of associate degrees into senior college degree plans;
2) cross registration opportunities with all S.U.N.Y. and many independent colleges throughout the State;
3) formal and informal agreements allowing use of S.U.N.Y. libraries and book stores and laboratories, studios and computer facilities during off-peak hours;
4) use of many other facilities in those cases where Empire State College is located at another S.U.N.Y. institution;
5) formal and informal agreements with businesses, government agencies and other organizations to provide internships; and
6) generic evaluations of many non-collegiate but more or less formal courses of study which provide credit equivalents for mentors and students to use in preparing degree plans.

In all these cases, the issues of quality control have already been examined and mechanisms constructed or accepted to deal with them. For example cross-registration and articulation agreements are worked out with already accredited sister institutions requiring not much more than traditional procedures for transfer of credit. Many generic evaluations of non-college courses are cataloged and updated by the College's Office of Program Review and Assessment providing mentors with a handy source for credit equivalents. But if everything is so neat and clean, what still remains to be done?

Nothing and a great deal.

"Nothing" if we want to stop experimenting, stop individualizing, stop linking experience to education.

A great deal remains to be done if we realize that there is no best way to do things, that the world continues to change, that we don't know everything yet, that our students' academic wants and needs should be taken seriously and that we can continue to explore indefinitely with our colleagues ways of enriching the environments in which students can learn.

New Institutional Relations

During the past year, at one regional learning center of Empire State College, we pursued and generally effected several fruitful inter-institutional relationships. Each of them required some level of formal agreement since each of them raised questions of program development or credit equivalence or faculty authority. Since this is the messy world it is, some of these relationships also could raise questions of funding and/or FTE allocation, and such matters could take precedence even over academic quality and creativity if the administration is not careful.

Before presenting these experiments in educational collaboration, I wish to refer to an article on "Access and Interinstitutional Linkages" by Dr. William Craft of Bunker Hill Community College. Dr. Craft calls attention to what he calls "essentials" of such linkages and I want to suggest that these may be recast as standards for judging the success of interinstitutional relationships for higher education. Among the essentials are: the clarity and simplicity of the relationships which constitute the linkages; their consistency with the mission and regulations of the institutions; the clarity of the purpose to be achieved, which is greater access for the intended students; the probability of adequate resources during the life of the relationship; evaluation criteria and a schedule for review; approval for the relationship by high ranking officers of the institutions involved; and finally routinizing the relationship as soon as possible to remove from it the aura of experimentation and uncertainty. The point of applying these standards is to make sure that a great idea for a collaborative program makes good educational sense rather than just good conversation.

Of the six relationships at the Buffalo Center during this year, three were with other collegiate institutions and were relatively easy to establish. I say "relatively" because two of them involved a fair amount of lively discussion and more than one "final draft." The other three are with non-collegiate organizations and tend to be less firm and less formal although not necessarily less fruitful for individual students.

1) There are three community colleges in our region of the State and we had articulation agreements in place with two of them. We completed the third agreement which has the usual purpose of facilitating the transfer of community college graduates into senior college programs for which all of their credits are accepted. In an attempt to make this more than a "paper statement," we agreed to schedule meetings of Empire State College mentors with potential transfers and to arrange an annual meeting to review new curricular offerings and generally to evaluate how articulation was working. We expect this modest improvement in the agreement to foster other kinds of cooperation in the near future including consultation between our mentors and their faculty advisors to preplan students' degree programs, assuring continuity and integrity in their educational experiences.

   Concurrent with this third articulation agreement, we continued to develop our relationships with the other community colleges. In the one case where we already used their facility for teaching our students we have hired one of their faculty as a part-time mentor who will both work with our other mentors to assure articulation and will assist students in preparing degree programs in business. At the other institution, we have begun to offer their staff members the opportunity to go to college without disrupting their work schedule. More interestingly from the point of view of articulation, we are planning to have a full-time Empire State College mentor-advisor on their campus to assist in the transition of minority students. There are many aspects of this project not yet worked out to assure clarity of purpose and availability of resources but it seems to have great promise for carrying articulation to new levels of importance.

2) A second interinstitutional agreement we concluded this year is like an articulation agreement for our students. Empire State College is not registered to offer teacher training programs but we have a steady stream of students who are paraprofessionals, teacher aides or who want to become teachers. They come to us in the first place because their schedules do not allow them to attend teacher-training colleges. Over the years, we have made ad hoc arrangements which covered most students more or less satisfactorily. There were, however, a growing number of students interested in educational studies and enough problems with ad hoc arrangements that we were led to formalize an agreement with a sister institution.

   This agreement allows a student to work simultaneously at both institutions, keeps the Empire State College degree program planning process intact, assures the other college of the FTE for those students, and provides the students with a letter affirming completion of the certification sequence. In this way, students are well-served, the institutions involved are rewarded for the cooperative relationship and the authority of faculties is retained in their respective areas of expertise.

3) The College was approached by the director of a medical research facility at a major university to provide higher education for technicians who were "stuck" in job titles but who were not free to attend scheduled courses at the university. In one sense, there is nothing new here. We are to provide college opportunities for a group of adults with work and other obligations. These students, however, have quite special educational needs which we are not easily able to satisfy without help. The help comes to us in the persons of the researchers and in the facilities of the institute itself. An Empire State College mentor is assigned to work with the students in collaboration with the institute director who has accepted an appointment as an associate faculty member. All normal college procedures will be followed; tutors and evaluators will be identified among institute faculty and they will guide students through independent studies within approved degree plans. Additional studies will be tutored by other Empire State College mentors. Not only will these students be well served but other Empire State College students will have a new pool of tutors and evaluators with whom to work.

4) Among the non-collegiate linkages explored this year, one involved "credentialing" in the form of a generic evaluation of professional and technical courses offered at an institute supported by an

industry of some importance in Buffalo. Over the years, we have had quite a few students from this industry and from this institute which had had some P.O.N.S.I. evaluations done. We explored the possibility of establishing a permanent panel to review courses and instructors, which would make recommendations to Empire State College faculty about credit equivalence. A stumbling block which we have not yet removed is minimum qualifications of institute faculty members. I believe a compromise can be reached in this matter, which would satisfy our faculty and our Office of Program Review and Assessment and which would not cause undue interference in the institute's ordinary operation. We have to complete this step during this summer. In the meantime, we continue to accept P.O.N.S.I. recommendations and admit students on a case by case basis.

5) The College has had a long-standing although quite informal relationship with a proprietary school, which is registered by the State to offer Associate in Occupational Studies degrees; these do not, of course, articulate with college degree programs, but many students requested credit for college-level learning based largely on course work taken in these programs. Depending on the particular staffing of an assessment committee such requests might very well be denied by our faculty. It seemed to me academically desirable as well as cost effective to review all course offerings in certain programs and selected other courses and to agree to a periodic review of syllabi and faculty. This would assure our assessment committees of consistent and accurate information. The administration of the school was most cooperative. As a result, they can more effectively advise their students whose credit requests are more likely to be approved at Empire State College, although in a very narrow range of programs.

6) Finally, a local arts organization and a local theatre sponsor a playwriters' workshop and staged readings of locally written plays. The instructors are college teachers who also occasionally teach for Empire State College. Some of our students were using these experiences and "wrapping around" them other learning activities to develop individualized learning contracts. We decided to "invest" some of our resources to support this endeavor, since we knew that community theatres often fail for lack of small sums of money. Our little help could make a difference and would assure our students a continuing source of experiential learning of very good academic quality. One Empire State College mentor works with two instructors as tutors for our students. The cost to the College is minimal; the academic quality of the contracts is assured; and the range of playwriting, acting, and production studies not often available to adult students in college is significantly broadened. Everybody benefits from this kind of interinstitutional linkage.

In conclusion, Empire State College's mission as an experimental college is advanced by many interinstitutional relationships. They enable us to serve the community well by using the community effectively. They provide students with many kinds of opportunities for learning which enrich their degree plans. In some cases, they broaden the population who can be served by the College. Although each of these cooperative relationships creates administrative difficulties and each raises potential academic problems, they are well worth the effort of our faculty and staff when they provide clearly designed, individualized learning activities in keeping with the purposes of the College.

[1] S.U.N.Y., "The Responsive University: The Master Plan of the State University of New York" (Rev., 1984)

[2] William M. Craft, "Access and Interinstitutional Linkages" in Ronald Miller, Providing Access for Adults to Alternative College Programs (Metuchen, N.J.: Scarecrow Press, 1981) pp. 68-81.

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MEETING THE NEEDS OF NON-TRADITIONAL STUDENTS FOR NON-TRADITIONAL PROGRAMS

Harvey Smith

By the 1970's it had become clear to many that the pool of eighteen-year-old high school graduates, from which traditional college freshmen are drawn, was going to decline significantly into at least the 1990's. This decline was predicted to be in excess of 25 percent between 1979 and 1992 with fully half of it to occur by 1985. As a consequence there were many who forecast major declines in college enrollments over this period. We all know that these declines have not come about in the manner predicted. In fact, in terms of total enrollment, there is an increase. Data reported in the May/June 1985 issue of Change Magazine shows that from 1979 through 1984 total enrollment in higher education increased by 7 percent. Does this evidence prove that the demographers were wrong? Not at all! During that same period of time, as predicted, the number of eighteen-year-olds declined nearly 14 percent. What it does reveal is that there has been a significant increase in the number of individuals aged twenty-two through thirty-four years old who have elected to enroll in college. From 1979 to 1983 the increase in the number of this age group alone who enrolled in college was some 660,000 or nearly 15 percent. This increased interest in a college education, on the part of an older population, had not been widely anticipated or predicted by many. I might also add that many have not recognized the reality of this demographic shift and made any serious attempts to adapt to it. Those institutions where faculty, administrators and admission personnel have recognized the emergence of significant numbers of non-traditional students as a "new market" have been able to absorb the impact of the declining eighteen-year-old pool reasonably well. On the other hand where this has not occurred, declines in enrollment have become a painful reality. For too long at Potsdam College, we failed to recognize what was beginning to happen and consequently did suffer declines in enrollment. We now believe we are about to reverse the trend, to a significant extent, because of non-traditional students and our adaptation to their needs.

Before describing our experiences with the non-traditional student, I believe I should share some information about Potsdam College. This will assist in assessing the relevance of our experiences to situations at other institutions.

Like many institutions, Potsdam College had its beginning as a Normal School. It has had a long and treasured tradition in teacher preparation. There are those on our faculty who will tell you we do a better job of preparing elementary and secondary teachers than does any other school in the State University of New York of which we are the smallest four-year college of arts and sciences. Crane School of Music, a part of our college, is celebrating its centennial this year and fully half the music teachers in New York are Crane graduates. Its reputation is nationwide, and even international in scope. The College has established high admission criteria and has maintained high academic standards. The faculty has refused to endorse any bachelor of science degree. The only exception to a bachelor of arts degree program at Potsdam is a bachelor of music degree offered in Crane. Thus, every graduate from Potsdam who enters the teaching field has the bachelor of arts degree with a major in an academic discipline and a second major in teacher education. This insistence upon quality, in terms of those we accept and the programs which we provide, has been widely recognized. In fact, in October, 1976 Changing Times Magazine identified Potsdam College as one of a select number of institutions where a student could receive a quality education at a modest cost. This is not to suggest that we cannot improve. In fact, we really need to improve. One of these improvements is what I wish to share--namely trying to accommodate the very special needs of the non-traditional student.

Over the years at Potsdam College, because of our excellent reputation and our ability to recruit outstanding high school graduates, always rejecting more than we accepted, little attention had been given to those students on our campus who fell outside the eighteen to twenty-two year age span. The one exception was in our graduate programs where we did schedule classes at times which fit the needs of area school teachers. Finally, however, the demographics began to catch up with us. Not only was there a decline in eighteen-year-olds nationwide but in New York State, and in particular those areas of the state from which we traditionally drew our population, a much greater decline occurred. The decline in public school enrollment has been approximately 30 percent in New York for a variety of reasons which I shall not deal with here. The net result was that our enrollments began to decline some four years ago. At first we attributed this to a lack of proper "marketing" on the part of our admissions office. We believed that all we would need to do to turn things around was to make certain we got the message out regarding what a great school we were. We soon learned however that this was not the case. Even by increasing the proportionate share of quality eighteen-year olds we persuaded to come to Potsdam, we could not stem the tide of the ever declining base from which we drew these students. As we tried to deal with declining enrollments and decreased allocation of resources from the State it became clear that our future, at least over the next decade or so, must be focused on some other population. No longer could we rely almost exclusively upon the eighteen-year-old high school graduate to maintain our enrollment. Two populations were potential sources of additional students. One was the transfer student from two-year colleges; the other was the non-traditional student. Transfer students, while a factor at Potsdam, have never been a significant source of students on our campus. In fact, the percentage of our incoming students each year who were transfers was the lowest of any of the four-year colleges in SUNY. Likewise, we had paid little attention to the non-traditional student population on our campus.

In the fall of 1984, we were fortunate in securing a new Provost who was much more attuned to the wealth of opportunity to be found in non-traditional students. Largely because of her leadership, we decided to investigate ways by which we might increase the numbers of such students on our campus and thus offset the ever-increasing decline in the number of traditional students we could attract. At the very outset we recognized that we knew very little about these students and their concerns. We also believed that if we were to attract such students in any significant numbers we would need to be aware of their needs and in all probability revise some of our practices to accommodate them. We were firmly committed to the concept that the quality of our programs must be maintained such that every Potsdam graduate, non-traditional or otherwise, would have had the "Potsdam Experience" and be someone in whom we could take pride.

With this in mind, we developed a questionnaire which was distributed to all non-traditional students. We distributed over 900 of these and had 239 respondents--55 male and 184 female. Examination and analysis of the returned questionnaires revealed several interesting facts. For example, 113 or nearly 50 percent were college graduates, many of whom were not matriculated in any program. Over 40 percent (104) had children at home with many of the children being pre-schoolers. Of the 239, 167 were employed. Forty-four or approximately 25 percent of those employed, worked 40 hours or more per week. Only 12 worked fewer than 16 hours. Fifty reported they were in the process of changing careers. By far the largest number (83) reported their probable major was Education. Twenty-eight expressed interest in Science, 21 in English, 16 in Music and Psychology, 15 in Sociology and 11 in Mathematics. Approximately 20 percent indicated this was their first experience in higher education. Of those returning to college approximately 50 percent had been out of college for more than six years. Sixty-five reported they had attended college for 6 to 10 years and 14 indicated they had attended over a span of 11 to 15 years. (In most instances this was as part-time students.) Those that intended to continue coursework at SUNY Potsdam numbered 173. A revealing bit of data is found in some of the comments made by those not planning to continue at Potsdam. Note these samples "finished degree," "Potsdam doesn't meet needs," "applying at Plattsburgh State" and "too many requirements in programs". Over one-third had taken extension courses and two-thirds commuted; 49 of these drove over 30 miles to come to Potsdam. Half indicated they would take courses if they were offered on weekends. Nearly two-thirds expressed interest in courses offered after 5 PM. Interestingly, 140 were unaware of any of the special services which we have to assist students. These services include tutoring, career services, counseling center, medical services, EOP, academic advising center, financial aid, and work study to cite a few. About half indicated that they took part in extracurricular activities on campus. This was a surprise to many faculty who assumed these students "drove in for class and drove home as soon as class ended." Moreover, one-third indicated a desire to see available services expanded. Suggestions ranged from better publicity about available services, the need for an on-campus child-care center, programs on how to handle stress, help in funding scholarships and grants, etc. to housing for families.

One key question asked was "What special problems relating to adult learners do you feel need to be addressed on campus?". Sample responses were offer more summer session courses; more evening courses needed; take adult learner's special needs into consideration when arranging class assignments and tests; necessity of taking useless courses to meet requirements; problems with child care; scheduling for commuters; extension courses; be able to pre-register; standardized time schedule for evening courses; off-campus extension courses during summer; more courses which meet once a week; tutorials to help get back into the swing of things; hours to contact any administrative office are very inconvenient when one works during day and out of town-- should have student or someone available to check records and answer questions; housing availability, making them aware of resources available; general receptivity--people aren't sure what to do with "older" students-office workers, professors, and some students - sometimes I feel like an alien; orientation geared to the needs of older students who have never attended college, or who are returning after many years; inaccessible buildings--everything seems to be locked up after 7:00 P.M.; more ways to get commuters and other off-campus people involved in college life; need flyer or handbook for non-trads.

A second key question was "SUNY Potsdam would like to increase the number of non-traditional students on campus. What suggestions do you have as to the best ways to accomplish this?" Sample responses were: acknowledge worth and needs of non-trads; advertise more; allow to pre-register; greater variety of courses to meet needs and interests of adult learners; child care on campus; remedial or re-entry types of courses; weekend and evening courses; let people know about opportunity for career changes; need a better attitude toward prospective students; tutoring and counseling services; alternative to A,B,C requirements for older students; credit for life experience; drop the "non-trad student" label; classes for longer time, but for one day a week; be able to take two courses back-to-back in evening; have easier registration procedure; departments must take a more humanistic approach to both recruiting and retaining students; education administration and faculty to get rid of prejudices toward older students; allow us to take as many hours for credit as we wish without forcing us to matriculate after 30 hours.

The concluding question was "Are there any other comments or suggestions you would like to make?". Sample responses were: have special courses in the summer for special students and courses on the weekends all year round; taking courses is fine, but would mean much more to many if they would lead to a degree; I, for one, due to the unavailability of evening/weekend degrees, was forced to attend Empire State College which, to me, is more work and less knowledge than the more traditional modes of communication; more education courses in Watertown area: students not kept informed of key events (data, deadlines, etc.); periodic mailings to off-campus students; too much bureaucratic nonsense: examine special academic needs of non-trads; need person to refer to if they had a problem with the Registrar, Financial Aid Office, etc.; better hours for PACES bookstore.

Just to dispel the belief that everything about our efforts was poor in the eyes of the students, please note these final comments by students: I am happy to be a returning student and enjoy taking courses at Potsdam State; I am satisfied with my professors and the registration process; Things are going very smoothly for me thus far; Watertown extension courses good; Most people try to help as best they can; This is one of the better questionnaires; Thanks for the recognition; All instructors helpful and understanding; Most students associated with student organizations helpful and pleasant; This survey a good idea; Survey is timely.

One may ask, how has this data been of value to Potsdam College. Let me openly confess that we have just begun to respond to some of the issues which confront us in working with this population. We are actively expanding our extension offerings in Watertown (approximately 75 miles away). We are beginning to schedule more courses in the evening and more courses which meet once a week. We have converted a part of one of our dormitories into apartments for non-traditional students. We plan to continue this conversion. We have developed two new Master of Science in Teaching degrees specifically to meet the needs of college graduates with no education background who wish to return and prepare to enter the teaching field. In its first year, we already have over 50 students in these programs. It is our conviction, based upon inquiries received, that these programs will grow in popularity. But perhaps the greatest benefit has come from taking a look at ourselves through the eyes of our non-traditional students. Frankly, we were unaware of many of the perceptions revealed in this survey. Individual faculty, administrators and other office personnel have done some real soul searching and I can report changes in attitude and treatment of students has taken place. Have we solved our problems? No. Have we made progress toward getting them under control? Yes! Today over 20 percent of our student body are "non-trads." We have approximately 1,000 enrolled with almost 600 working toward a degree. Some of the increase might have happened had we done nothing. I'm convinced, however, that much of what has happened has come about because we conducted the survey and then made a conscious effort to respond to what was revealed. I'd recommend that any institution, which has not already done so, examine this ever-expanding pool of potential students. If we can assist you by sharing our questionnaire or other information please contact me at the School of Professional Studies, Potsdam College, Potsdam, NY 13676.

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NON-TRADITIONAL STUDENTS: WHO ARE THEY? WHERE ARE THEY? WHAT DO THEY DO TO GET TO US? WHY ARE THEY HERE?

Stephen Tibbits

Colleges and universities across the country are undergoing substantial changes in their undergraduate population. Oftentimes these changes are unnoticed by administrators, faculty members and even students. Nonetheless the typical student body has changed dramatically in the past few years. Recent statistics from the Department of Education show that the median age of a college student in the Fall of 1985 was 31.8 years old, with only 48% of all students attending undergraduate institutions under the age of 23. This is a significant change for what many of us have been used to and is incomprehensible for any who have been involved in the process of higher education over the past three decades.

Aubrey Forest, presenting a paper in the Fall of 1985, talked about the significant changes in the past thirty years that are impacting upon the colleges and universities. High school graduation rates have increased from 50-75%. The population of 18 year-olds has doubled in this country. The percent of high school students graduating and going to college has gone from 25% to 60%, but nonetheless given these statistics from 1979 through 1984, the number of 18 year-olds on our college campuses declined by 14% while total enrollment was up 7%. Other significant factors as we take a look at the change of our college populations are that 30 years ago, less than 1% of our students were involved in remedial programs as they entered as freshmen, today this number approaches 35%. The numbers who delayed entrance to college has gone from 1% to 13%, part-time students have increased from 23% to 42%, freshmen who are found working during their first year has increased from 23% to 42%. The percentage of full-time students living on campus between the ages of 18 and 22 has gone from a majority to less than 17%. Education in the 80's is indeed different than the 50's, 60's and 70's as adults immerse themselves in higher education.

A study commissioned by the college board and undertaken by the Future Directions for a Learning Society highlights the following:

> Forty million adults are currently in transition in the United States. This transition is actual where people are unemployed and seeking work and/or participatory, they are dissatisfied and are looking for other jobs or challenges to face them. While this transitory group is predominantly female, white and between the ages of 20 and 39, non-traditional students make up a diverse section of our population. They are married, single, widowed, divorced, employed outside the home and inside the home, unemployed, rich, poor, with and without children, new freshmen, transfers, returnees, citizens, international students and resident aliens. They are so diversified that to make generalizations about them is difficult. We do know that half have already completed some post-secondary

education before their return and that those who are employed predominantly come from semi-skilled or skilled labor positions.

Patricia Cross, in her book The Adult Learner, talks about 40 million adults in this country currently in some stage of transition that will lead them into the educational marketplace. Peter Frances, in his syndicated column of September 1985, stated that 10 million adults are currently enrolled in our college and universities. Thirty-three percent of them working towards degrees.

Most of these adults that have returned could be classified as young baby boomers between the ages of 25 and 34, but the population of our campuses continues to shift and change as senior citizens and retirees return, upper level management become displaced and seek new alternatives, and as colleges and universities become alternatives to people seeking new direction in their lives. Those of us on residential campuses that have basically existed to serve the traditional student population need to survey the impact that such changes are having on their on-going operations. In making such assessments a number of questions need to be addressed: Why are these adults returning to our colleges and universities?

Surveys show that 50% of them are returning to meet a particular financial need. Skilled and semi-skilled workers are seeking upward mobility, more interesting work and professional enhancement and they see college as a means to this end. Job obsolescence and an increasing participation of females in the job market certainly has a significant factor causing adults to return to college. The longevity of workers, the changing role of women and equal opportunity legislation add impetus to these people as they return. Moristan and Smart, in their research, identified five factors for non-traditional students to be returning to college. In addition to specific career orientation, they identified the non-directed person, the one with no specific goal; those seeking social opportunities through personal associations and interactions; stimulation seekers, those attempting to escape the boredom of daily routine; and finally those seeking a life change, breaking a routine, seeking to open up new horizons.

As they return, these non-traditional students bring with them very specific goals. 1-Knowledge and curiosity, the excitement of learning for learning's sake. 2-Personal goals, looking for a new job, advancement, licensure or certification, etc. 3-Social reasons, specifically to meet people, to create a sense of belonging and a sense of importance in their life. 4-To escape, to be happier, to get away from problems and routines that have let their lives become mundane.

Gail Sheehy, in her book Passages, talks about the various transitions that adults are going through and how these transitions lead them back to our campuses. Fifty-six percent of them are involved in career transitions, 16% in family transitions, 13% in leisure transitions and 5% of them dealing with various health transitions. In working with these students, we must realize that their goals are oftentimes different than the traditional students that we seek to serve and we must change our approaches in dealing with them.

As we examine who the non-traditional students are and why they return, it is crucial that we be aware of the various barriers that they face and overcome in order to arrive on our campuses. The various barriers can be categorized into three distinct areas. The first area being situational barriers - items such as the cost involved and balancing of finances in order to return to school, the time commitments mandated by returning, the conflict with home responsibilities and the conflict with job responsibilities, all seek to create a great deal of anxiety for the returning adult student. The second area would be institutional barriers - specifically, the time to get a degree, the scheduling of courses at times when they cannot attend, a lack of information on what's available, the institutional red tape involved, and attendance requirements that are often not flexible to meet the needs of the non-traditional student. Finally and probably most important are those dispositional barriers that they face - attitudes such as I'm too old, I won't fit in, I got low grades in the past, I won't be welcome.

In working with non-traditional students a great deal of our energy must be spent in helping them cope with the various barriers that they face in reaching us and continue to face as they seek to complete their education. One of the ways in helping them to deal with the many struggles that they face is the use of humor. Dale Reich, at the University of Wisconsin, produced a list of statements that are most appropriate when working with adults. Each statement begins - You know you are an adult student when:

you're the only one sitting in the first row.
you're the only one who remembers JFK as president.
the music in the Student Union building gives you a headache.
you think ELO is a political group and Ted Nugent is a candy bar.
people stare in disbelief when they hear you say you are there just to learn.
you ask more questions than the rest of the class combined.
you are the only person on campus not carrying a backpack.
you look at the girl next to you and realize she's spent more for her pair of jeans than you spent on your first car.
you are the first to come to class, and the last to leave.
people talk of what you are doing at Spring Break and you talk about painting the living room, while they talk about going to Florida.
Finally, you know you are an adult student when you go to bed at night glad that you'll never be 18 again.

As we examine the non-traditional student and the question of meeting their needs the first question that must be answered is, Does our college or university want the non-traditional student on campus? If so, does it want them on campus for their sake or the institution's? If you truly want to serve the non-traditional student population, the first area of concern must be to dispel the myths associated with non-traditional students. Specifically, (1) that non-traditional students don't need services, (2) that non-traditional students resent services in the helping areas, (3) non-traditional students are so busy that they have no need for activities. Research shows that these students have the same need for services as our traditional students, that they have a need for career planning services, services from the counseling office, financial aid assistance, and finally given appropriate opportunities, they will become involved in various co-curricular activities. In many ways they have some of the same needs as our traditional students, but there are significant differences between the two populations that need to be addressed. The traditional student will use college as a full-time job for him/herself while the non-traditional student oftentimes is sharing college with a job, family, and various other responsibilities. The traditional student is using the learning to later apply in life when he/she has gained the appropriate experiences, while the non-traditional student needs educational experience tc relate his experience to learning. Traditional students have few responsibilities outside the college, while obviously the non-traditional student is dealing with a host of responsibilities - family, job, home, etc. For our traditional students, college is often a compulsory matter for them for a number of reasons, whereas the non-traditional student's return to college is generally voluntary.

Pennington and Keller talked about the four major areas demonstrating the differences between adults and students. First, life experiences; secondly, the adult learning is more highly motivated; third, the returning student may have difficulty in dealing with procedures, developing study skills, adjusting to problems; and finally, the adult student may experience other problems such as unrealistic goals, poor self-image, social-familial problems, and sometimes an excess of practical orientation.

In meeting the needs of non-traditional students it is important that we establish what we can and cannot do to serve them. While we oftentimes rely on surveys we must remember that they are often difficult to interpret especially when needs are not readily identifiable to those being surveyed. As an example, it was only after the electric refrigerator was developed that it became a need in most people's minds. Rather than using needs assessment surveys we must use our expertise to show that might be important and implement changes accordingly to better serve the non-traditional students. It is imperative that one establish some background material and information in order to understand their particular concerns. To become familiar with literature, I would refer you to The Adult Learner: Neglected Species by Knowles part of the Jossey-Bass series; Passages by Sheehy; Providing Student Services for the Adult Learner by Art Schreiber; and New Directions for Student Services: Applying New Developmental Findings by Kneffelcamp and Parker. Knowles has also written other books that deal with the learning theory surrounding adults and his work on adrogogy is something that all our faculty members need to become familiar with. Such reading helps us understand some of the Physical differences that exist, vision, hearing, recall processing of information, all being significantly different as the student matures. Also one will become familiar with the fact that the spectrum of the adult population is even more spread out both quantitatively and qualitatively than our traditional student population. Quantitatively, the level, rate, and direction of change, and qualitatively, a change in the nature and types of behavior. There is individual variability in almost every type of intellectual capacity and this increases along the life span. You must be aware when working with adults that they learn differently, and are affected by different things. This does not mean that they are not equally prepared to handle the college experience similar to the 18 year-old.

Considering the influx of the non-traditional students to our campus, there are certain steps that need to be taken to respond to their particular needs. Administratively, we need to cut the red tape that stands in the way of their application and acceptance into our institutions. Upon doing so, we need to develop orientation programs, specifically geared to meet their needs and to create for them a sense of belonging. Academically, our faculty members need to examine various learning theories to understand that adults while excellent students, learn differently and therefore demand to be taught differently. Finally, administrative policies must reflect the commitment to accommodate to the schedules of these people as opposed to expecting these students to fit into established structures. The list goes on but the key factor is an institution that seeks to become sensitive to the various needs of these students.

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MEDIATING CONFLICTS IN ADVANCED PLACEMENT

Maurice R. Duperre

Most institutions have some procedure in place for dealing with prior learning of their applicants. While there is a broad spectrum of practices from liberal to conservative, two considerations are common: applicants and institutions are apt to differ in evaluating credit earned, and enrollment patterns (with all of the staffing and fiscal concomitants) are affected by the institution's decisions.

In these days of declining pools of potential new students, declining (or at best, grudging) governmental fiscal support and somewhat greater sophistication on the part of our consumers, the students, the potential for conflict is high. This paper will explore briefly the nature of conflict, especially in a higher education context and will then review a protracted revision of policy and procedure as one college came to grips with problems in advanced placement of incoming students.

The Nature of Conflict

A number of writers (Follett, 1940; Ellis, 1958; Clark, 1961) have pointed out that some degree of conflict is healthy. We need both strong faculties and vigorous administrations to emulate the healthy pluralism of democracies. The conflict with which we should concern ourselves is that which exceeds healthy pluralism and approaches nonintegrative disruptiveness. But such a statement implies a defined point beyond which conflict is disruptive. In addition to the difficulty in telling when that point is reached, political philosophers would differ even in assigning such a point. Georg Simmel and others after him, (Simmel, 1955; Lipset, 1960) held the extreme view that all conflict is beneficial. Lieberman (1968) implied that the bargaining process in school situations could be a positive good.

One definition of conflict (Goldman, 1966, p. 335) draws upon earlier thinkers in this field:

> CONFLICT SITUATION: A social relationship between two or more parties (persons, groups, or empirically distinguishable entities) in which at least one of the parties perceives the other as an adversary engaging in behaviors designed to destroy, injure, thwart, or gain scarce resources at the expense of the perceiver.

The adversary relationship stressed by this definition infers the non-integrative aspect of conflict. Conflict would seem to be harmful when the adversaries channel very much of their energies into defending against perceived attacks rather than into constructive criticism or cooperation. Coleman (1957) also touched upon this notion when he observed that conflict often deteriorates from attacking issues to attacking opponents.

The relative scarcity of resources is an important component of conflict, too. The scarcity of resources has been dealt with by sociologists in zero-sum game theory, a zero-sum game being defined as one in which the sum of gains and losses for all players equals zero or, in other words, where one participant's gain has to be at the expense of another. But are community colleges limited to zero-sum games? Boyan (1966) questioned the fixed power concept of the industrial model. He advocated a dual representation of faculty, one group to concern itself with salary, hours and working conditions, and the other to assume some responsibility for basic institutional questions. Ohm (1966) also suggested that in a school, an open system, the amount of authority could be increased, each constituency assuming enough to carry our responsibilities. On the other hand, there are still many community college administrators and faculty who regard all issues, even those of little import, as matters of personal prerogative and emphatically as zero-sum games.

The Setting for the Case Study

Let us see if we can accept the notion that a representative faculty organization such as a senate can be useful in the development of academic policy and procedure. One can hope that such an area of decision making would not fall into the zero-sum category.

Midlands Technical College is a comprehensive two-year college with a heavy emphasis in a variety of technical fields. Like most two-year colleges (and much to the surprise of many people when they learn this) we regularly take in more students as transfers than we have transfer from us to other colleges. In addition, we attract a variety of applicants with non-traditional prior learning. These include many military, students from our large continuing education division, trade school students, people who have completed various apprenticeships, and former secondary school enrollees from a variety of vocational/technical programs.

Traditionally, department head at MTC have been virtually autonomous in reviewing records and awarding credit. In fact, when a student changed majors, he or she might receive from the new department head a substantially different credit given. The department head was that of the student's major; therefore, an Accounting Department Head would evaluate all of the previous work of a prospective accounting major, including general education, business courses, or perhaps even engineering technology. No institutional history was kept, so a given course, at different times might be equated to any one of two or three different MTC courses or given no credit at all. And each time a transcript came in to a department office, the department head would go through the same process, most but not all of the time with the same results.

In its Policy and Procedure Manuals, the College claimed to afford students credit for a variety of prior learning experiences, including transfer credit from other colleges, secondary school articulation agreements, College Level Examination Programs (CLEP), credit for real life experiences, college courses audited, continuing education units (CEU's), Servicemen's Opportunity College (SOC), military schools, and challenge examinations.

Revising the Policy and Procedure

In 1983 the College decided to review routinely one-third of its published policies and procedures each year. At about the same time, a somewhat loose system of faculty committees was formalized, a Central Committee added, and a set of by-laws developed and adopted. Those policies and procedures dealing with curriculum, academic affairs, and faculty affairs began to be routed through the Central Committee for faculty input. Early on, we adjusted the projected time lines for review and revision, because we thought that it might take as much as several months if we were to involve faculty in the process.

During the 1984-85 school year, the Vice President for Academic Affairs began to discuss aspects of the College's twelve-page procedure on advanced placement with various individuals within the College. It was suggested to the Registrar that here office might assume a greater role. Key faculty were approached about their attitudes toward such notions as credit for life experience. Department heads were asked about the work load involved in dealing with requests for advanced placement. Suggestions were sought from Deans and from the other Vice Presidents.

In April 1985, the VPAA wrote to the Chairperson of the Central Committee, enclosing an eight-page suggested revision of the procedure. The chief change proposed was to involve a central clearing house; the Student Affairs Division had nominated their Career Services Office for the honor. Other changes included deleting SOC and CEU's, incorporating "practical experience" and "audit students" under "challenge examinations," and adding DANTES to the CLEP section. Language generally was tightened, and a system for prompt notification of all parties and for appeal, if necessary, was added.

The Academic Affairs committee of the faculty met on May 6, 1985. The minutes of that meeting note the "dramatic changes" proposed, the deletion of "Real Life Experience" proposed, "the proposal to give one person responsibility" and the "consensus of the committee that the Department Head is obviously most qualified." The committee also disagreed with a section of the proposal which would have allowed courses with of "D" to transfer from other technical colleges in our system, a provision thought to be mandated by our State Office. Finally, the Committee voted unanimously to stay with the existing procedure, but to take up the proposed revision again in the fall.

The administration agreed. On October 1, the Committee, with some new members and a new chairman, took up the matter again. Some specific progress was made, including recommendations of a minimum grade of "C" for transfer credit and reliance upon a "department of expertise" for determination of course equivalency. Those highlights were publicized through the Chalkboard, a College house organ. The VPAA responded by memo to the two chairpersons, Academic Affairs and Central Committee. His response tried to assure them of the continuing role for department heads in substantive, rather than joint routine, decision-making on transfer; after researching the question, he accepted the recommendation on "C" grades. He also urged more direct communication before taking public stands.

Following this, the chairman of academic affairs did meet with the VPAA several times over the next few months. The committee met and continued to discuss aspects of the procedure each month from November through April. The VPAA and all department heads were invited to one of those meetings for an open discussion. One problem was a reluctance to involve the Student Affairs Division of the College; a compromise was reached by using the phrase, "Transfer Evaluation Office," wherever necessary, though no such entity existed at the time. Other compromises were also worked out, and a procedure acceptable to all parties was adopted in late May of 1986, about eighteen months after the start of the process.

Conclusions and Recommendations

This brief account of a lengthy episode may be instructive in two main ways: substantively and procedurally. There is a considerable difference of opinion, at least within this one institution, on how liberal to be in awarding advanced placement. Also, there are some ideas, such as technical course articulations with secondary schools, which other colleges might wish to explore. Procedurally, the keys seem to be communication and compromise. The communication must be genuinely two-way, thus implying much group and one-on-one discussion. Misunderstandings of others' points of view abound. Not only are faculty and administration mutually suspicious, but there are camps within the faculty, and all of this compounded by any involvement of student personnel services. The risk of becoming a zero-sum game is real, but with an added twist: people want the right to decide, but not the responsibility for the work. Finally, and encouragingly, when one party to such a discussion perceives another as willing to make real concessions, the first party responds in kind. In the end, progress can be made, even in complex, sensitive issues, and all parties gain an increased respect for the professionalism of others.

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MUSEUM MATERIAL CULTURE: PRIMARY RESEARCH RESOURCES IN EDUCATION

Jerry K. Frye

Introduction

In the museum world there are many methods and avenues for public education. The major obligation of the Smithsonian, founded in 1846, was stated by James Smithson, its patron and namesake: "The increase and diffusion of knowledge." While the examination of material culture as scholarly source material is a long recognized and accepted methodology of museums, the academy is typically more familiar with sharing knowledge orally with support from documentation of the printed word in books, journal articles, manuscripts, and various professional correspondence. Generally, the university equates education with spoken and printed words. Artifacts typically are thought properly to reside in the anthropology or archaeology departments. The non-traditional and interdisciplinary education focused on ob ects as source material for serious, accepted scholarship is increasingly legitimized by American Studies. The discovery of material culture emphasizes Aristotle's suggestion more than 2,000 years ago: "observing in any given case all the available means of persuasion." Education in universities and colleges could benefit by more use of the material culture of museums as their primary resource materials (Mayo, 3).

Primary material cultural artifacts of the political campaign process reside in the world's greatest museum of political history at the Smithsonian. The Smithsonian collections of political history in the National Museum of American History contain some of the earliest campaign devices. Many political campaign devices incorporated various animal symbols. This article describes a material culture genre of political animal symbols which can benefit American political history instruction.

Animal symbols have been employed from colonial America to the present. There are many works concerned with symbolism of animals and their popularity testifies to the perennial interest in animals and what various animals represent in human terms -- from medieval bestiaries and historical studies of individual animals to examinations of literature, art, and folklore. At first thought, animals might seem to be unusual couriers for political prose, but animal symbols as communication devices have used since the ancient Egyptian hieroglyphics.

Selection Criteria

The purpose is to describe, analyze, and evaluate the animal symbols used throughout American presidential campaign history. With so many possibilities, some explanation seems required of the prerequisites for membership in a political zoo's who's who. All political animal symbols could not be included because we do not have a large enough zoo -- the inhabitants would be overwhelming. Admission requirements allowed for animals notable by association generically as national symbols (dove, eagle, donkey, elephant), animals used in campaigning peripherally (Fala, Checkers, Tammanny Hall Tiger), and animal images found on campaign devices (raccoon, rooster). Animal iconography of campaign devices became the subject of my particular interest and focus. Like all admission requirements, borderline cases occur. Some animal symbols not quite matching selection criteria slipped through the back door of an otherwise restrictive roster.

At one time or another, almost every kind of animal and living creature imagined has been utilized in politics, especially in political cartoons, but the selective focus is on animal images employed in presidential campaign devices. As used here, political animals includes those symbols in the form of living things. Some "animals" included here are not animals at all. Insects, for example, are represented by the silverbugs and goldbugs. Thus, some of the zoo's inhabitants, although not technically classified in biology or zoology as animal, are here considered "animals" broadly defined. And, some political animals included here, like those of George Orwell's ANIMAL FARM, are "more equal than others."

Some political animals became associated with the political campaign process and had short term effects, but in a few cases, national, enduring symbols were born. Some are well-known, national symbols; others are obscure in a national context, but were meaningful at the time, particularly to political party members. Reluctantly, some animals were omitted which had political ties, but were not used in campaigns. Some past symbols were used differently than expected but earlier meanings do not necessarily lose their significance. Most of the animals chosen still possess an immediate kind of symbolism. What follows is a combined study of unnatural history, political science, communication, and folklore.

Symbols depicting animals have exemplified human traits admired, feared, respected, or disliked. Invented fables describe the sly, crafty fox; the industrious bee or ant because supposedly these creatures possesssed such characteristics. The word "symbol" comes from a Greek word meaning "to throw together." When a concrete object becomes a symbol, it constitutes the semblance of something not shown, but realized by association. In this way, animals symbolized human qualities and characteristics transformed into metaphoric shorthand.

A mixture of common and esoteric symbolic animals are found in political devices. Some contemporary symbols are common knowledge; some are esoteric, relying on private meanings of the properly initiated for understanding. The general focus here provides knowledge of less esoteric symbolism within its historical context. Animal symbols were not confined to any particular communication medium; rather, a wide variety of vehicles served to transport symbols including print, metal, embroidery, tapestry, plastic, stone, ivory, sculpture, cloth, and others.

Some animal symbols are traditional, belonging to the mythology of everyone. An almost endless supply of animal images exist for use by writers, poets, artists, dramatists, film makers, advertisers, and politicians to evoke consciously or intuitively immediate and profound responses. We respond to animal symbols intuitively, their meanings, ancient and universal as they may be, are not always fully apparent.

Background

Anthropologists have noted ancient traditions of selecting animals as totems, symbols, and charms carrying good luck connotations to ward off evil. Ancient tribes often selected animals as their special symbols whose particular characteristics they aspired to emulate, or whose skills and vitality could be attributed to the tribe members. Humans sometimes have believed and behaved as if they could take on the characteristics of their animal "mascots." Modern use of animals as sports mascots and automobile names continues the practice.

A major justification for employing symbols is audience identification - a flag, salute, handshake, hairstyle, clothing, slogans, emblems, national symbols, American bald eagle, songs, and colors are all identification devices that have been employed in political campaigns. Symbols are used to discover associative links between a candidate or party and target audiences. Numerous devices have been used to establish identity. Most often used are symbols linking the campaign with the public.

With the creation of the new nation, delegates to the Continental Congress felt the need to establish a symbol for the United States to convey the characteristic essence of the nation. Work began on July 4, 1776 and after extended Congressional debate -- five different committees spanning a six year time period -- Congress finally adopted the Great Seal design on June 20, 1782. The American eagle was selected as the nation's new symbol of supreme power and authority of Congress; an emblem of freedom, self-reliance, and courage (Patterson and Dougall).

National Symbols

At first the eagle was the only national symbol -- used on the Presidential seal and the seal of the United States of America -- a central symbol of the new nation -. and a communication device immediately recognized by those within and outside the United States as representing this nation.

Mid-19th Century

The mid-19th. century was particularly rich in the creation of symbols as the electorate began to coalesce around various political parties. A mass electorate was developing prior to a mass electronic age, thus communication techniques were needed to communicate instantly the feeling of party membership and ideology. Mass appeals were linked to the broadening of the electorate in the mid-19th century as voting laws were changed and voting rights greatly broadened.

Political items -- buttons, banners, broadsides, and other devices of political campaigns chronicle America's political history. Candidate's messages to voters have appeared on virtually every conceivable device--but many of them were discarded after the election and thus have not survived. The persuasive and psychological significance of imagery continues to serve modern politicians in our visually oriented society.

A Zoo's Who's Who -- Political Campaign Symbols of Animals

bear -- Theodore Roosevelt -- Teddy Bear -- based on the story and the Clifford Berryman cartoon, published in Washington Star November 18, 1902. The original Teddy Bear sent to TR is now at the Smithsonian.
bird -- bluebird woman suffrage; to symbolize peace generally; and peace factions; cock - The cock or rooster was used as early as Andrew Jackson in the 1820s as a Democratic Party symbol and off and on during the 19th century; it was used for both candidates in 1892 in "I Crow For" . . . Cleveland (D) or Harrison (R) (Frank, p. 76); associated with McKinley (R) in 1896, rooster on the four corners of a banner for Bryan & Adlai E. Stevenson (D) in 1900 (Frank, p. 89), and the 1920 (D) Cox associated with a rooster or cock, i.e., Cox/Roosevelt pin; doves-symbol of peace; eagle - most common patriotic symbol; hawks - the "War Hawks" those in Congress and in the community who wanted to pursue the War of 1812 with Great Britain -- and hopefully gain additional land in Canada (then controlled by Great Britain) for the expansionist thrust of tbe United States; turkey - there is some dispute, but generally claimed that the turkey was in contention as the national symbol. Franklin was supposed to have favored the turkey, the turkey symbolized Scott while the Democratic candidate Pierce was symbolized by the cock (Frank, p. 30).
bug -- "goldbug" William Jennings Bryan and "silver-bug" 1896
bull - Wide Awake Bull and Lincoln image
camel -- symbol of Prohibition Party (dry)
coon -- Henry Clay, "Same Ole Coon"
dog -- At the Democratic National Convention in Baltimore June 25 through July 3, 1912, the contenders were Champ Clark and Woodrow Wilson. A cloth hound dog was a campaign object in support of Champ Clark; a button, "They gotta Quit Kicking My Dawg Around." The train carrying the St. Louis Democrat to the Convention was called the "Hound Dawg Special." Delegates brought their hound dogs to Baltimore. In 1952 the Ike dog was the English bulldog. Washington Post, December 3, 1985, p. B3 said the term "yellow dog" came from Catholic Al Smith's unsuccessful bid for the presidency when so many Democrats were bolting the party because of his religious affiliation; one who stayed said, "I'd vote for a yellow dog if he ran on the Democratic ticket." Nixon's cocker spaniel, Checker's, in his 1952 "slush fund" defensive, televised speech; FDR's dog Fala, Roosevelt made a speech in September, 1944 defending Fala, the claim that a navy destroyer had been dispatched to pick up his dog was untrue said

FDR: "his Scotch soul was furious. He has not been the same dog since" (Tremain, 80).

donkey -- first appearance of the Democratic donkey was Thomas Nast's January 15, 1870 issue of Harper's Weekly. "Ten cent Jimmy" was likened to a donkey in an anti-Buchanan cartoon; this was before the Nast cartoon generally credited with the donkey symbol. At other times, the Democratic donkey (mule) is referred to as Nancy (see Frank, p. 53). Truman's (Missouri) mule symbolism; like many enduring American symbols, a Nast cartoon carried the caption: "The Democratic Party is like a mule -- without pride or hope of posterity."

elephant -- Nast's elephant, the first appearance of the Republican elephant was the November 7, 1871 issue of Harper's Weekly.

fox -- a Nast fox in 1874 represented Democrats with the Republican elephant (Tremain, 68)

frog -- the frog, sometimes depicted as an iron frog actually had its origin in 1842 as an advertising item for a farm wagon manufacturer in Jackson, Michigan. An 1881 company celebration used four-pound iron frogs as an advertising gimmick. In 1884, politicians who apparently had seen the Jackson Wagon frogs, produced a similar frog with the Legend: "I'll Croak for Blaine and Logan" (Collins, 1969, 16-17).

horse -- Washington on white horse, Teddy Roosevelt riding on San Juan Hill; also "dark horse" James K. Polk (Tennessee) was the first "dark horse" presidential candidate. Sidney Hyman, writing in the New York Times in 1955, held that in the oral tradition of American politics the authentic dark horses were but five: Polk, Pierce, Hayes, Garfield, and Davis. Zackery ("Old Rough and Ready") Taylor's horse, Old Whitey, grazed freely on the White House lawn while Taylor was President in 1849 (Tremain, 190);

moose -- bull moose party; Teddy Roosevelt, shot while giving a speech; he is supposed to have said, "it takes more than that to kill a bull moose." Bull Moose, Progressive Party, at his third candidacy for President, 1912, TR said "I feel fit as a Bull Moose."

opossum -- Billy the Possum (Taft and Bryan)

Panther -- (Black) Panther Party

sheep -- Wilson - sheep; "Sheep Campaign Torch, 1896" was made to resemble a sheep and suggested the wool issue of 1896 (Collins, 43).

snake -- Ben Franklin's "don't tread on me" and Copperheads -- Democrats who favored disunion and war prior to the Civil War. The rattlesnake is a fearsome creature. It had no visible eyelids and was thus considered a symbol of vigilance; thought never to attack without provocation, and never surrenders to an assailant, once provoked -- became a powerful symbol of the rebellious colonists. The motto "Don't Tread On Me" which appeared on flags of the Revolutionary War period picturing the rattlesnake, meant just that: don't press too hard because I'll attack -- and my bite is deadly (Horwitz, 26).

tiger -- Tammany Tiger, Nast's symbol for Tammany Hall--New York City's corrupt Democratic organization run by William ("Boss") Tweed -- appeared in Nov 11, 1871 issue of Harper's Weekly, two days before the election; Tweed eventually went to jail (Tremain, 249).

turtle -- terrapin (dry land turtle), used by Prohibition Party.

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Acknowledgments
This research was supported in part by the Smithsonian Research Fellowship (1981-1985) and contract #ST5021670000 at the National Museum of American History, Division of Political History, Washington, D.C. I want to acknowledge the help and cooperation of Smithsonian staff: Keith Melder, Edith Mayo, Carl Schele, Herbert Collins, Cory Gillilland, Butch Vosloh, Marilyn Higgins and my research assistants, Betty Branch, Margaret Wilson, and Robert Fratis.

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SEX EQUITY WORKSHOPS FOR ADULT EDUCATION TEACHERS IN LOUISVILLE, KENTUCKY

Jeannie Heatherly and Janet Steffens

Jefferson County Public Schools Adult Education Program is the major deliverer of adult education services in Louisville/Jefferson County, Kentucky. Programs range from basic education, vocational education, personal skill building, leisure learning, and homemaking skills, and serve approximately 30,000 adults annually from both the general public and target populations.

The Sex Equity Workshops for Adult Education Teachers Project was designed to provide eight training sessions for part-time and full-time instructors of adult education in Jefferson County Kentucky. In the Jefferson County Adult Education program, 80% of the part-time teachers are noncertified, but have expertise in their subject area, such as computers, ballroom dancing, oil painting, drafting, and real estate. The project, which originated from the known importance of the educator's attitudes in creating a sex-fair environment for participants in the adult classroom, was funded through the Carl Perkins Vocational Act. Since sex stereotyping is known to be limiting for both males and females, this training will make it possible for participants in the adult education program in Jefferson County to experience a more complete range of possibilities in leisure learning, vocational training, and homemaking skills.

Five objectives were established for the project:

1. To help the staff examine their own personal attitudes and stereotypes about sex roles

2. To heighten awareness of the harmful effects of sexism in the classroom

3. To allow the staff to meet non-traditional role role models

4. To provide teachers with information and skills to recognize sex bias and stereotyping in classroom activities and materials and

5. To present clear suggestions and strategies for working with adult students in a non-sexist manner.

Each of the eight workshops was taught by a coordinator and was two and one-half hours in length. Each workshop was open to 30 teachers and enrollment was done using a letter which included a choice of dates.

Teachers were offered a stipend to attend and registration was accepted on a first-come-first-served basis. Attendance was voluntary; it was not considered part of the teaching responsibility. An effort was made to select workshop sites in various areas of the community based on convenience and participant accessibility. Several workshops were planned one week prior to each of the three sessions of adult education classes.

Workshop content included thirty minutes of teaching techniques and suggestions for working with the adult learner which was presented by an experienced adult educator. Participants were given hand-out sheets discussing suggestions for handling classroom problems and outlining ten ways to avoid problems in the adult classroom. The rest of the workshop was conducted by the workshop coordinator and included: a pretest, an attitude survey, information about sex-fair treatment in the adult classroom, a group activity to help participants learn to evaluate written material for sex-fair language, group discussion, textbook examination, a post-test, and a participant evaluation. This portion of the workshop began with the Gender Communications Quiz published by the Mid-Atlantic Center for Sex Equity. The answers to this pre-test were interspersed throughout the workshop.

After the pre-test, participants were asked to identify adjectives which are generally used in describing males and females. These were listed on a flip chart and differences were discussed.

An historical account of sex-role stereotyping was presented. Images of women as weak, whining, and excitable creatures and men as logical, tough, and aggressive have had a long history in our civilization. Influences of the family, the media, and classical literature on our expectations for males and females were discussed.

After the group discussion, the participants were given an attitude survey about sex role expectations. They were asked to answer honestly and were told that the answers were only for their information.

The survey was followed by a presentation about the female and male mystique which provided descriptions of characteristics and qualities often attributed to each sex. Changing roles of males and females in today's society were discussed and examples were given regarding the influences these roles could have on classroom settings. Participants were asked to give examples of situations in the classroom setting where sex role expectations might cause the teacher or students to feel uncomfortable and strategies to avoid or handle possible problems were outlined.

Statistics and facts from recent studies were given to show how males and females have traditionally experienced sexual bias in the classroom. The use of sex-fair language and humor were discussed.

Participants were then given textbooks used in adult education classes and a Textbook Bias Identification checklist developed by the

University of Miami and the University of Tennessee. They were asked to assess textbooks according to sex-role and racial stereotyping. Participants worked in small groups and each group reported its findings.

The importance of sex-fair classroom materials was discussed. The following components of a sex-fair classroom were identified:

- Materials are free from bias; there are examples of males and females in non-traditional careers and an equal number of pictures and/or illustrations of males and females.
- All students are expected to do the same amount and same kind of work.
- All students have equal opportunities to do their tasks.
- Both males and females are taken seriously.
- Language is non-sexist; "he/she" is substituted for "he".
- Males and females are called on equally.
- Eye contact is the same for both sexes.
- Both men and women are asked challenging and thinking kinds of questions.
- Both men and women are given credit for their comments.
- Women's career aspirations are taken seriously.
- Neither men nor women are interrupted by faculty or other students.
- Sexist humor is avoided.
- Males and females are treated similarly with regard to standards for dress and appearance, evaluation of academic/lab performance and application of classroom rules and privileges.
- Both sexes are encouraged for their strengths and assets.
- Expectations are the same for male and female students.

Data indicating attendance, pre-test scores, post-test scores, score ranges, score averages, median improvement, and average improvement for each workshop are shown in the following table.

Workshop Number	Number Attended	Percentage of Improvement	Median Improved Score	Ranges of Responses:		Average:	
				Pre-test	Post-test	Pre-test	Post-test
1	10	71.3%	18	8 to 14	15 to 19	10.9	17.6
2	20	46%	14	6 to 14	9 to 19	9.9	14
3	28	55.5%	15	6 to 14	8 to 18	10.5	15.2
4	29	86%	16	3 to 14	7 to 19	9.5	15.4
5	20	52.4%	14	6 to 16	11 to 18	9.4	14
6	12	47%	15	8 to 13	9 to 20	10.1	15.2
7	13	38.5%	14	7 to 13	9 to 17	10.4	13.8
8	14	46%	15	7 to 12	9 to 20	10	15.2
Totals:	146	55.3%	15	3 to 16	7 to 20	10	15

The workshop ended with a post-test and evaluation of the presentation and content.

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FEDERAL PROCUREMENT PERSONNEL:
THEIR JOB-RELATED LEARNING

Joseph L. Hood

INTRODUCTION

The objective of the research reported here was to explore the self-learning projects of those persons working in the occupations of Federal procurement. Nine research questions addressed: (1) the extensiveness of the self-learning projects, (2) the content of the subject matter studied, (3) the strategy or method used, (4) assistance secured by the individual practitioner in deciding to begin a project, (5) the difficulties encountered during a project, (6) aids in accomplishing a project, (7) the role of learning for credit, (8) perceived changes in the employer organization to facilitate self-learning, and (9) perceived changes in the learner's preservice education and experience.

The size of the total annual Federal procurement expenditure prompts people to be concerned about the integrity of the processes through which the expenditure is made (1). The critical component in the process concerns the knowledge and skill possessed by personnel working in the procurement offices (2). Federal agencies have established procurement training programs which provided for specific job oriented courses to be taken during the procurement practitioners' progress from Grade GS-5 to Grade GM-13. These courses are stipulated as "mandatory" because of the need to assure a minimum level of competence of its procurement practitioners. Part of this need arises from the diversity of educational backgrounds and job experiences of these people (3). Agency executives have taken actions to adverse reports revealing that less than 50 percent of the procurement personnel have taken the mandatory courses (4).

This surfaces the question of how people within the respective ranks acquire the requisite knowledge and skills to perform their assigned duties and responsibilities in the procurement offices. Many other questions are subsequently raised. Did these people engage in some sort of individual or group learning effort independent of the established program? If they had, are they still doing so? How much effort do they spend in such learning? What is the content of their learning? What assistance did they have? What difficulties did they encounter? Can there be organizational changes which will foster this kind of learning effort? Can there be any changes in their preparation for learning about procurement work in either their education or experience?

RESEARCH DESIGN

The goal of this type of research is the identification not only of variables, but also of the relationships between and among variables in a job-related self-learning projects performed by procurement personnel in the Federal Government (5).

Many different terms or expressions have been used for self-learning. These include self-education, self-motivation, self-teaching, independent study, individual learning, self-directed learning, and self-study. A "self-learning project" consists of a series of episodes totaling at least 7 hours within a 1-year period that have the purpose of not only gaining a definite knowledge and skill, but also retaining that knowledge and skill for at least 2 days. The term, "self-learner," is used to describe the phenomenon of people who engage in learning activities without the use of a teacher (6).

Data Sources and Collection:

Over 72,000 persons are employed in the procurement occupations by the Federal Government (7). Over 3,300 are employed by one Federal agency of which 459 are assigned to one buying center. The GS grade levels for these 459 persons ranged from GS-5 through GM-15 with 340 being Grade GS-12 and higher (8). From this population of 340, a sample size of 10 percent of the population, 34 persons, was selected by using the more rigorous systematic random sample design which offers the advantages of stratification by grade level (9). The structured personal interview method is the principal means of collecting the data from those performing job-related self-learning projects. Additional data from the archives complements the interview data. The data collection instrument consisted of an interview schedule, probe sheet, and project data sheets (10). All of these were validated by a panel of experts from the fields of education, procurement, and research methodology.

Data Analysis

Variables: The 22 variables for which measurement was obtained were classified into two distinct groups: (1) the primary variables pertaining to the self-learner and self-learning projects and (2) other relevant variables, including the demographic variables. The primary variables for the self-learner were: total number of projects, total number of hours spent, suggested organizational changes, suggested preservice education, and suggested preservice work experience. Those for the self-learning projects were: subject matter, learning strategy, assistance in deciding to begin project, source of difficulty during project, source of assistance during project, and learning for credit. The demographic variables were: age, Civil Service grade/rank, formal education level, recency of formal education, longevity of current grade/rank, and longevity of Government service. The remaining relevant variables were: time spent on each project, time utility of new knowledge, status of each project, and job role (line/staff and management/operative).

Statistical Tests: Nonparametric tests of significance were applied since the data were nominal and ordinal. The analysis used the mode for each respondent as the independent observation to determine whether or not (1) a primary variable was statistically significant in the population for the participation in self-learning projects, and (2) a statistically significant association existed between the primary variables and the other variables. The statistical tests used were the Chi Square tests for goodness of fit and independence and the Fisher Exact Probability test for nominal measurements, the Mann-Whitney U-test and the Spearman rank correlation for ordinal measurement. Although some of the variables were suitable for interval measurement, the assumptions for using the tests appropriate for interval data could not be met (11).

RESEARCH FINDINGS

Sample

The sample drawn was representative of the population in that the ages, grade levels, and education levels of the sample are not unlike the population.

Extensiveness of Self-Learning Activity

Job-related self-learning activity for procurement practitioners was extensive and a significant differential behavior in that some engaged in self-learning activity more than others. Those that performed more self-learning projects and spent more time in self-learning tended to be involved in management and staff work rather than operative and line work.

Number of Self Learning Projects: 405 job-related projects were performed by 32 self-learners of the 34 procurement personnel in the sample. The number ranged from as few as two projects to as many as 24 projects. The median number of projects was 11 for both the sample and the performers. The variation among the self-learners in the respective categories of the number of projects suggested that self-learning activity tended toward a differential behavior. Job role (both line/staff and management/operative) provide a differential basis for such self-learning behavior with those in management and staff roles performing more projects.

Hours Spent on Self Learning Projects: The 32 self-learners from the sample spent nearly 21,000 hours in self-learning activity. The number of hours ranged from as few as 132 hours to 1,840 hours. The median value was 578 hours for the 32 self-learners. This variation of hours spent on self-learning projects by the self-learners indicated a significant differential behavior. Job role again provided a significant differential basis for the behavior with those in management and staff as spending more time in self-learning activities.

Type of Subject Matter Studied

Distribution of Self-Learning Projects: Nearly three-fourths of the 405 self-learning projects performed were technical/business oriented with over half oriented exclusively to procurement office technical matters. The remaining 25 percent were oriented toward human and conceptual skills.

Distribution of the Self Learners: Nearly all of the self-learners confined their activity to the business/technical subjects. Hence, a differential preference existed for the procurement categories of subject matter.

Association with Other Variables: Five variables tended to be associated with subject matter. Concerning job role, those selflearners performing staff duties confined their activities to only procurement subject matter while those performing procurement line duties included other subject categories demanded by their jobs. The time utility of the newly acquired knowledge was associated with subject matter studied in that subjects other than procurement had a much longer time utility. As to the time period for each self-learning project, projects concerned with procurement subject matter tended to last 1 week or less, while projects dealing with other subjects were evenly distributed over different time periods. Learning strategy (self-planned/other) is also associated in that procurement subjects were preponderantly self-planned, while other subjects were exclusively self-planned. Self-learners dealing with procurement subjects had more difficulty in their planning and evaluation of the projects.

Learning Strategy Employed

Distribution of Self Learning Projects: Over half of the 405 self-learning projects were accomplished through a mixed strategy rather than any one of several specific strategies. The self-learning strategies (one-to-one and self-planned) were employed in nearly 18 percent of the projects.

Distribution of the Self-Learners: The largest group of self-learners employed mixed learning strategy while the next larger group seemed to use the self-planned strategy. Hence, a significant differential preference.

Association of Learning Strategy with Other Variables: The association of learning strategy with other variables is presented in terms of three different groupings of learning strategies: (1) mixed strategy/specific strategy, (2) self-planned strategy/other strategy, and (3) self-planned and one-to-one learning strategies/other strategies.

(1) Mixed Learning Strategy/Specific Strategy: When time utility of newly acquired knowledge was longer than 1 week, a mixed strategy was used. The type of assistance encountered during a project where the mixed strategy was used tended to be for planning and evaluation. If assistance occurred in organizing, a specific strategy was used. The specific strategy tended to be used in the projectors having a completed status. Concerning job role, line procurement personnel tended to employ a mixed strategy whereas staff procurement personnel tended to use specific strategy.

(2) Self-Planned Learning Strategy/Other Strategies: Association emerged with three variables--job role (line/staff), subject matter, and time utility of newly acquired knowledge. Line procurement personnel tended to use a strategy other than self-planned while staff procurement personnel tend to use the self-planned strategy. Self-planned learning strategy was used exclusively for subjects other than procurement while both self-planned and other learning strategies were used for procurement subjects. For new knowledge to be used for longer than 1 week, strategies other than self-planned tended to be employed.

(3) Self-Planned and One-to-One Learning Strategies/Other Strategies: two variables were associated with this grouping. In terms of job role (line/staff), line procurement personnel tended to use strategies other than the self-planned and one-to-one strategies while staff procurement personnel tended to use these strategies. Concerning time utility of newly acquired knowledge, if the new knowledge was needed for less than 1 week, the self-planned and one-to-one strategies tended to be used. For longer periods, other strategies were used.

Assistance Received in Deciding to Begin

Receiving assistance in deciding to begin their self-learning projects was not a significant practice. This kind of assistance was not received in 90 percent of the projects. Only one of the self-learners received assistance in deciding to begin self-learning projects.

Source of Difficulty Encountered

Distribution of Self-Learning Projects: Organizing the materials for the procurement job-related self-learning projects accounted for 40 percent of the projects' sources of difficulty; organizing both materials and people accounted for nearly 56 percent of the sources of difficulty. Planning the project accounted for over 26 percent of the sources of difficulty. Slightly less than one-fifth of the projects revealed that evaluation of the project was the principal source of difficulty.

Distribution of Self-Learners: Organizing of materials for the self-learning projects had the highest frequency of occurrence. The variations among the categories revealed that significant differential occurrence existed with respect to the sources of difficulty encountered.

Association with Other Variables: Five other variables are associated with difficulty encountered, thus revealing a differential basis. With respect to time period, the source of difficulty in projects lasting less than 1 week occurred in the organizing of the materials and people. In projects lasting longer than 1 week, it occurred in the planning and evaluation of the project. Regarding job role, line procurement personnel report the sources of difficulty in both the organizing and planning/evaluation categories, while staff procurement personnel report the source of difficulty only the organizing area. Assistance in planning/evaluation and organizing occurred directly with the reported sources of difficulty. Concerning time utility difficulty in Planning/evaluation tended to occur when the newly acquired knowledge was required to be retained longer than 1 week. With respect to subject matter, the source of difficulty tended to occur in the organizing of materials and people when procurement subjects were studied while difficulties in planning/evaluating tended to occur when subjects other than procurement were studied.

Source of Assistance Received during Project

Distribution of Self-Learning Projects: The categories of both organizing materials and people comprised 81 percent of the sources of assistance received during the self-learning projects. Planning as a source of assistance was cited in less than 16 percent of the projects.

Distribution of the Self-Learners: Organizing people and materials showed the highest frequency of occurrence. The variations among the categories reveled that among the self-learners a significant differential occurrence existed with respect to the sources of assistance encountered.

Association with Other Variables: A differential basis emerged with three other variables (job role, learning strategy, and difficulty encountered). Assistance in the form of organizing people and materials occurred almost exclusively for operative level procurement personnel in their self-learning project, whereas assistance for management level procurement personnel occurred in both organizing people and materials occurred when a specific learning strategy was used as opposed to a mixed strategy. Assistance in the form of organizing people and materials tended to occur with the same sources of difficulty.

Learning for Credit

Learning for credit was not an important consideration in the undertaking of a job-related self-learning project by procurement personnel. Less than 5 percent of the self-learning projects were taken for credit. None of the self-learners had a mode (the most frequencies) of learning for credit. None of the other variables employed were associated with learning for credit.

Organization Changes to Facilitate Self-Learning

Two categories of changes (resource identification and more special meetings) accounted for over 50 percent of the self-learners. Organization changes to facilitate self-learning was not differentiated with self-learning activity. The 34 self-learners varied in their selection among the five categories of perceived changes to facilitate their job-related self-learning. There was no association between organization changes and other variables.

Changes in Preservice Education and Experience to Facilitate Job-Related Self-Learning Projects

Preservice Education (Fields of Study): The even distribution of the 34 self learners among the six categories of fields of study supports the lack of a differential preference for preservice education field of study. A basis for differentiation of the business field of study emerged with total number of projects, grade level, and age. Those with a business field of study orientation tended to have more job-related self-learning projects. Most of those in grade levels higher than GS-12 tended to prefer a business field of study. The business field of study tended to be preferred by the older procurement practitioners.

Preservice Experience (Variety):

The distribution of the 34 self-learners among the categories of variety of experience revealed a differential preference for preservice experience in one or more fields. However, there was no differentiation of preservice experience variety with the other variables.

Preservice Experience (Specific)

The distribution of the 34 self-learners among the categories of specific preservice experience revealed differential preferences for preservice experience in fields requiring social interaction. Specific preservice experience was associated with five variables. Those who preferred a specific preservice experience tended to have more projects, had recently completed their formal education, had higher formal education achievement, were older, and were performing management roles.

Incidental Findings

Findings incidental to the research focussed on the differences between high learners and low learners in terms of self-learning performed by one of the procurement practitioners.

High Learners and Low Learners: Some of the procurement personnel interviewed engaged in more self-learning activity than others. Those who engaged in substantial self-learning activity are referred to as high learners. Conversely, those that engaged in minimal self-learning are referred to as low learners. During the course of the interviews, some individuals would apologize for not having done any or as much self-learning activity as they think others have. On the other hand, others would brag about their doing more self-learning than others. Regardless of which, each would offer unsolicited reasons why they do engage in a lot or very little self-learning. These reasons seem to fall into three groups--attitude, interpersonal relations, and organizational identity--and differentiate the high learners from the low learners.

The attitude of the high learners was demonstrated by their enthusiasm for their job and their career field. They seemed to thoroughly enjoy their work and its many challenges. The attitude of the low learners was reflected by somewhat lower levels of enthusiasm. Although some low learners seemed to enjoy their work, others simply tolerated it and were sticking it out until they could retire. A few of the low learners felt that they knew all that was necessary to know.

High learners seemed to possess better interpersonal skills than the low learners. Many of the low learners seemed to have difficulty in the interpersonal relations with their clients, peers, superiors and subordinates. Moreover, their level of aspiration seemed much lower than that of the high learners. Low learners felt they would not be promoted whereas high learners aspired to higher level jobs. Two of the high learners had recently been promoted.

Finally, the high learners seem to be identified with the more prestigious and publicized organizations. They seem to work in jobs where they are highly visible to the top executives. Low learners seem to be located in the less prestigious and less visible organizations. Several respondents apologized for having so few projects. They further indicated that in past periods when their organization was the more prestigious and publicized, they had many more job demands and engaged in many more self-learning projects.

Example of a Self-Learning Project: One individual had been assigned to an office where he had to price proposals rather than rely on the specialized pricing staff. Although this individual had experience in pricing proposals, he felt that he needed to know how to use other techniques, such as the learning curve, because of an immediate need. Having identified what he wanted to learn, he consulted one of the supervisors in the pricing office as to how he might learn to use the technique. The pricing supervisor first loaned this individual some books, citing the passages to study and then set up a series of several meetings. This individual as a learner would have to accomplish several tasks prior to the meetings. In this case, it involved using the technique on his work assignments. After several meetings, which took place over a 4-month period, the individual and his tutor, the pricing supervisor, were satisfied that he possessed sufficient skill to use the technique in his current assignment.

This example illustrates how an individual could conduct a self-learning project. Perceiving a knowledge and skill deficiency, he was ready to learn a specific knowledge and skill. He employed a tutorial or one-to-one learning strategy using an expert. The job tasks demanded that he should begin such a learning project. His main difficulty was deciding how much to learn. His major source of assistance was his tutor, an expert. He received no documentary credit for this learning endeavor. He spent over 40 hours of his own time both on and off the job and with about 10 hours being spent with the expert. The utility of the newly acquired skill was immediate and continued throughout the new duty assignment and, perhaps, will continue to future assignments. For all practical purposes, the self-learning project is completed.

CONCLUSIONS

1. Job-related self-learning is extensive in the Federal procurement occupations and the extensiveness is differentiated by the individual job roles.
2. Subject matter studied is not only preponderantly procurement office oriented, but also is oriented toward applications of new as well as existing knowledge.
3. The self-planned and one-to-one learning strategies are the dominant ones for job-related self-learning activity.
4. Receiving assistance in deciding to begin a project is not inherent to job-related self-learning for procurement personnel.
5. Finding the knowledge resources--materials and people--tends to be the major source of difficulty in job-related self-learning projects.
6. Finding knowledge resources--materials and especially people--tends to be the major source of assistance encountered during a job-related self-learning projects.
7. Identification of resources is a principal change in organization that is important to facilitate job-related self-learning activity.

IMPLICATIONS FOR MANAGEMENT

From a practical viewpoint, management includes those who are concerned with in-service professional development of procurement practitioners. This includes not only members of the procurement career boards, but also (1) those executives, managers, supervisors involved in procurement operations and policy with Government agencies, and (2) the administrators, department heads, teachers, writers, and librarians of the various schools and training organizations, both Government and proprietary.

Because of budgetary constraints, procurement education and training face a financial crisis, and one alternative is the use of self-learning projects. The Office of Personnel Management is encouraging more active programs of occupation-oriented self-education and training throughout the Government. The Federal Personnel Manual stipulates that the head of each agency is responsible for encouraging the self-education, self-improvement, and self-training of the employees of the agency. The heads of the agencies have been directed to monitor the effectiveness with which self-development is encouraged at all levels. The General Services Administration has institutionalized self-learning by establishing a Self-Learning Instructional Center at its Central and regional offices. The Government Employees Training Act, P.L. 85-507, as codified in Title 5 of the United States Code, Chapter 42, recognizes that it is necessary and desirable that employees' self-education, self-improvement, and self-training be supplemented by Government-sponsored programs.

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TECHNIQUES FOR INDEPENDENT STUDY LEARNED IN THE CLASSROOM BUT APPLICABLE TO CONTINUING EDUCATION

B. E. Kirk

I am currently writing the materials and designing an independent study course in microbiology that could be offered by mail. In the process, I reviewed the independent study course I taught to pharmacy students four times in the classroom. That course was organized in the style of the Personalized System of Instruction (PSI). I wanted to view the course like a laboratory exercise to see what could be applied to a correspondence course.

PSI courses have five distinctive features. (1) Students determine their own rate of progress. (2) Each unit must be mastered before the student advances to the next. (3) Information to be learned is presented in written form rather than in lectures. (4) A few lectures or discussions are offered for motivation only. (5) Proctors or tutors play an important role in the operation of the course by their daily contact with students. Because the course I am planning would have no face-to-face encounter between proctor and student, it would not meet the criterion of a PSI course (Keller and Sherman). On the other hand, correspondence educators insist that students in correspondence courses receive more direct interaction with the instructor than they would in conventional classroom courses. Therefore, if adequate feedback were offered by mail, the instructor should be able to approach the supportive function of the proctor in PSI courses. Because the theoretical foundation of the PSI system seems to be so sound, a course that uses as many of the same techniques should provide a better learning experience than one which uses fewer of the features of PSI.

The Need for Change

I began looking for an alternative to the lecture when I discovered my students weren't learning what I thought they were learning. I was astonished by the realization that a student could earn a degree without ever having had an original thought. Surely there was a better teaching method than the lecture. I still feel that way. However, PSI isn't the only effective method of teaching. Some instructors give excellent lecture courses, but others don't offer their students anything close to an optimum learning situation. I once told a colleague I thought the lecture method survived this long because it is easier to execute. After you have notes organized, it is possible to present a credible lecture with little or no additional preparation. However, that practice would fail to provide improvement or updating. I suspect his irate response was provoked by my threat to his role as a professor and to his ego that was reinforced during his lectures. He needed the lecture system to validate his existence in the academic community.

Minimum Standards

The most difficult decision I had to make during the design of the PSI course was to set a limit on the information a student must learn to make an A in the course. Until that time, I had the illusion that students learned more than they really did, and if I defined what a student must learn I would also suppress additional learning. I now realize that outstanding students learn whatever they want to in spite of anything I do, and most students do just enough to get by at a level of accomplishment they set for themselves. For example, responses to an evaluation following a lecture course shows that 65% of my students read the assigned reading in the text 50% of the time and 20% read it all the time. Thus, if 80% relied on lecture notes to some extent, they certainly didn't reach the heights of achievement I had imagined. I conclude that continuing education will continue to struggle with the need of instructors to establish a realistic level of learning and the need of students to feel they are in control of their own destiny. However, students can be encouraged to achieve the required goals if the rewards for achievement are guaranteed, are frequent enough, and are great enough. The punishment of poor grades has always been an inefficient way to improve student achievement.

PSI Is not for Everyone

Some students preferred the PSI course to a lecture course, but others did not. Each year, approximately a third of the class said they liked the flexibility the PSI course offered. They could study when they had time, and there were never conflicts with other examinations. A third of the class in lecture courses also expressed a preference for an independent study course, so that opinion is not just a bias for the familiar method. This group would probably prefer an independent study course for continuing education. However, another third hated the PSI course and on the evaluation form wrote four-lettered expletives to express their dissatisfaction. I conclude this group would never voluntarily take such a course again. Therefore, it may be necessary for continuing educators to offer an option of teaching styles to attract both types of students.

It surprises me to find students so polarized in learning preference especially in a class of professional students that are selected for their apparent aptitude in that profession. One student wrote, "No student can really learn material on their own like one can with regular contact of a lecture." Indeed, one assumption about the effectiveness of the lecture system is that students learn better in the classroom than they do anywhere else (Johnson and Ruskin). In one class, 26% wrote in comments to the effect that if instructors don't lecture, they don't teach. I am concerned that 26% of a profession will graduate without the skill to learn on their own. Brockett and Hiemstra (Brookfield, 1985) also agree that human potential is lost because learners are unable to increase the responsibility for their own learning. The lecture system has done no service for that 26%. On the other hand, I offered supplementary lectures in an attempt to accommodate that same group. However, after a couple of weeks, no one came. At least part of the reason was that the class progressed at different rates and lectures often came at the wrong time. Conversely, students may not be tied to the lecture as firmly as they say they are.

I gave up the PSI course for two reasons. First, it required too much work even after it was organized and running smoothly. However, I would have done the work had it not been for the second reason which was criticism from my colleagues. I decided that if other people didn't like it, there was no reason to put in all that work. Keller and Sherman (1982) caution teachers not to use PSI without the support of key officials and the protection they offer from critics. My critics claimed the students weren't learning what they should have learned, and they were at least partly right. But do your students learn everything you think they should learn? I didn't learn everything when I was a student, and neither do my students. However, the important issue is what _do_ students learn. It is easy to discover what students don't learn or don't recall instantly, but more difficult to say what they do learn. When I gave an unannounced comprehensive examination to my classes a year after they had my course, students answered an average of 59-64% of the questions correctly whether they had a lecture or PSI course. I conclude that is reasonably good retention, and that my critics didn't appreciate what my students had learned.

Test Security

Students are highly innovative and will do almost anything to beat the system just to show how clever they are. For example, in the PSI course, students had to pass a quiz on each unit with a score of 85% to progress to the next unit. Students who didn't pass the first quiz went on to a second or third with no penalty. Thus, it was organized so any student could eventually get to all the quizzes for a given unit. I didn't discover until late in the final term that the more enterprising students would study for one unit, memorize the answers to the 15 multiple choice questions on that unit in order, walk out of the room, write down the answers, and give them to a friend who memorized them. Even though the quizzes were distributed randomly, the second student was bound to get the correct one eventually. That meant the student must memorize 15 letters in order--c, a, b, d, ... I resisted believing students would do that until I proved it to myself. The problem could have been prevented by adding more quiz forms so that students wouldn't automatically get the one for which the answers were available. Nonetheless, with such innovative skills, I must wonder if students willing to go to such lengths to beat the system in the classroom will complete continuing education honestly. The pressure for grades in the PSI course wasn't that severe since students could earn full credit for every unit if they were willing to put in the time and effort. I conclude that continuing educators must watch for violators, but the effort needed to make continuing education absolutely secure would be too expensive and stifling.

Suggestions for Writers

Written study materials used for independent study need to be absolutely explicit. Keller and Sherman (1982) argue that a situation where the task is unclear is not a learning situation. However, I have asked too many bright students what some passage in a textbook meant only to have the students answer they couldn't understand. The passage seemed clear to me and an idea worth pursuing or I wouldn't have asked. I feel sure the author would say my students must be dull because the passage is perfectly clear. For what it says, it usually is clear. However, when the questioning is pursued, what becomes clear is that the passage doesn't give enough information. It made sense to me because I automatically supplemented information from other sources. I suspect authors do the same thing and never put those thoughts on paper. As a writer of seemingly perfect prose, I know how easy it is to stop short of clarity.

The problem described above is a case of what I call "just mentioning" things. I caution you to avoid that urge. When one of my critics discovered I didn't cover mumps vaccine in my course, he suggested that I "just mention" the vaccine. I declined for the reason that unless students know who should receive the vaccine and why, the fact that the vaccine exists will be useless trivia.

To ensure reasonable clarity, I recommend two techniques. First, if you were to present only one idea to your students, decide what that idea would be. Then describe it completely and clearly, and avoid "just mentioning" something. No matter how many ideas you want to present, if you don't do that much, you will have missed the only teachable moment you will ever have for that idea. If you fail to convey the most important idea, the value of the remainder has to be diminished. When you have finished that idea completely, identify the second and so on.

The second recommendation for writing is this. When you write study materials, write the test questions, objectives, and responses to those objectives at the same time. Then cross check to make sure the information is complete and clear in the study material. I am amazed by what I think I put in but don't. If you can't write enough distractors to multiple choice questions, chances are you haven't differentiated the topic clearly.

What Is Right About Lectures?

Since so many students prefer lectures, something must be right about them. Let's say that lectures organize, clarify, and emphasize. If that is true, then let's utilize the technique when we write. The narrative style of textbooks is better adapted to bedtime stories than to study material. For one thing, the most important material is given the same emphasis as the least. Even though the author includes learning objectives, they tend to be too general to identify in the text with bold type or some other gimmick. If the author says there are three reasons for some fact, too often they won't be numbered and I can only find two. I like to use an outline format for my study material because an outline shows graphically how one thought relates to another. However, roughly half my PSI students said they preferred a narrative style. I suspect that if they had to struggle through a standard textbook, they wouldn't like it any better. Nonetheless, I am convinced it is time to experiment with different writing styles with the clear understanding that textbook publishers won't like any of them.

Personal Contact with Students

Some critics of PSI say they don't want to give up the personal interaction with their students. However, I guess that in a conventional lecture course with 65 students, I would engage no more than 25% in meaningful discussion during the semester. I also guess that the critics don't do any better. In contrast, PSI students interact every day with a proctor. Furthermore, I spent the entire class time every day talking to students. I never talked to so many students before, and I never will again.

Rejoice for What You Do Right

Finally, if you design courses with care, organize them well, and apply them vigorously, they will provide a good learning experience for your students. If you have done that, don't feel guilty if your students don't learn everything. Don't worry about what they don't learn. Instead, try to identify what they do learn and why they learn it, and use that information to teach them something else. Take advantage of the things you do right. You'll like yourself better if you do. So will your students.

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THE PLACE OF PRIOR LEARNING IN RELATIONSHIP TO A LIBERAL ARTS FOUNDATION IN THE UNDERGRADUATE PROGRAM

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The purpose of this paper is to explore the place of prior learning in relationship to the idea of a liberal arts foundation in the Undergraduate Degree Program. To do this we must first explore the content and purpose of liberal arts.

The content of a liberal arts education as well as its purpose has changed over the centuries in response to cultural, social, political and technological developments.

It was probably the Greeks who provided the intellectual foundation for education with their emphasis on rationality as a way of life and their emphasis on this world rather than another world. Socrates saw education defining general principles of conduct for those who would be good and just, Plato felt education was to form the character of people appropriate to the ideal society and to help bring leaders forward. Aristotle saw education as a branch of politics necessary for the building of a cohesive community and public morale. In Sparta, education was to prepare the citizen-warrior for his place in the military state. Education was linked to the state and aimed at developing the intellect for appropriate participation in society. These intellectual arts appropriate to these purposes came to be thought of as "Liberal Arts" and those appropriate to artisans or workmen as "Practical Arts."

The Roman Empire, eventually encompassed Greece, but Roman thought added little to the notion of liberal arts as it was basically Greek in origin and content. The Christian Church developed within the Roman Empire, patterned its organization increasingly after that of the empire, and grew to great spiritual and secular power. Cassiodorous in the 6th Century had found sufficient scriptual sanction for the seven liberal arts often associated with Capella (the quadrivium of arithmatic, music, geometry and astronomy and the trivium of geometry, rhetoric and logic) to fix them as necessary preparation for the study of theology in the Middle Ages. The medieval limitation of the liberal arts was established in fixed form as early as the beginning of the 6th Century.

During the middle ages the rise of the University led to the expansion of the liberal arts curriculum to include newly discovered works of Aristotle on physical sciences ("natural philosophy"), ethics, politics ("moral philosophy") and metaphysics ("mental philosophy"). Why were these studies the basis of a liberal arts education? The answer lies in the church's practice of licensing teachers, all of whom were clerics. Before the rise of the University, the Licentia was granted by the Bishop or Chancellor of the Cathedral School.

The first prescribed curriculum in arts appears to have been established at the University of Paris in 1215. When a person finished the study of elementary liberal arts, a Bachelor of Arts was granted indicating that he was ready to be an assistant teacher. The study of the higher liberal arts and Aristotelian philosophy for three more years would lead to the final license to teach and the recognition as a master teacher (Master of Arts). At Oxford University, to earn a Bachelors degree required studies in grammar, arithmatic, rhetoric, logic and probably music which was primarily math. To earn the Masters' degree one studied geomentry, astronomy, Aristotalian philosophy (physical sciences, ethics and metaphysics).

In the Renaissance of the 14th, 15th and 16th Centuries, Humanistic education steadily gave ground in the subjects of both the trivium and quadrivium, until the founding of Trinity College in 1546 with its Professorships in Greek, Hebrew and civil law setting the seal on the transition from medieval to the humanistic tradition.

In the 16th and 17th Centuries the liberal arts were used to serve religious purposes during a time of religious ferment. To the medieval liberal arts and the philosophy of Aristotle were added the Renaissance studies of classical humanism, particularly Latin, Greek, Hebrew and Rhetoric.

The Enlightenment of the 18th Century gave us a new world view based on Sir Isaac Newton's views and the empiricism of John Locke. It produced the birth of new theories, but application was slow to follow. Rousseau's Doctrine of Naturalism pried teaching methods loose from traditional Practices. The most far reaching results were the rediscover of education for citizenship and, in Lockes's writing, for reaching social status.

In America, the establishment of Kings College (Columbia) in 1754 widened the concept and aim of liberal arts to include contributing to commercial and civic usefulness of the people as well as to the religious and state purposes. The Great Awakening in America had already reaffirmed the traditional liberal arts and concern for an educated clergy for church and state leadership. Only slowly did scientific and commercial studies take hold in the universities. America followed the English university pattern in liberal arts not the medieval university model.

In modern 19th and 20th Centuries we have witnessed the rise of empiricism, the dominance of the deductive scientific method, the growth of utilitarian aims of scientific and practical studies, growth of technologic systems the explosion of information and a growing multicultural world setting for education. The concept of a bachelor of arts degree has been widened to include, on an equality with traditonal B.A.s, new studies such as English, modern languages, social sciences, technical and professional subjects.[1]

The content and aim of a liberal arts education, as well as the methods of learning liberal arts, has changed considerably over the centuries in response to cultural, social, political and technical developments. Chart "A" Provides a simplistic overview.

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[1] For a more detailed historical perspective see: R. Freeman Butts, A Cultural History of Western Civilization (New York: McGraw-Hill, 1955), Henri Marrou, History of Education in Antiquity (New York: Sheed and Ward, 1956), Arthur Cohen, Humanistic Education in Western Civilization (New York: Holt, Rinehard and Winston, 1964), Carroll Atkinson, The Story of Education (N.Y.: Chilton Books, 1962), and Robert Beck, A Social History of Education (Englewood Cliffs: Prentice-Hall, 1965).

CHART A. Historical Overview

	Aims of Education	Emphasis in Education	Methods of Education
Greeks	-Form Character for ideal society. -Build coherent community. -Identify general principles of conduct.	-Cultivate intellect -Gradual separation of Liberal and Practical Arts.	-Dialogue. -Debate. -Logic.
Middle Ages	-Preparation for study and service in the church-state.	-Religious/Secular reconciliation in Scholasticism.	-Prescribed course of study and books to read, -Exams.
Renaissance	-Humanistic emphasis on a well-rounded personality capable of leadership in church and state.	-Distill the best from the classics. -Development of the individual.	-Study classics. -Re-emphasis on grammar and rhetoric (style and form of written and oral speech).
16th & 17th Centuries	-Liberal Arts to serve religious purposes.	-English concept discipline and prescribed curriculum grew out of religious Protestant emphasis.	-Memorize, recite argue by rules of formal logic, -Study of books.
18th Century Enlightenment	-Discipline the mind. -Discover natural laws.	-Empiricism vs. rationalism. -Education for citizenship and social status (Locke).	-Rigid assignments. -Drills. -Recitations.

CHART A. Historical Overview (continued)

	Aims of Education	Emphasis in Education	Methods of Education
19th & 20th Centuries	-Create national identity and discover cultural heritage. -Scientific and technical development. -Re-discovery of individual.	-Empiricism -Scientific procedures -Research/Development. -Human Development.	-Wide variety but scientifically based.

In general, liberal arts have served the purpose of preparing the individual to participate, usually in a leadership role, in the society and in leading social institutions of the age.

The challenge today is to re-define the content (and perhaps the aim) of liberal arts. This must be done in light of a rapid changing society that is part of a multi-cultural world community characterized by the challenges of technology, the explosion of information and the need to re-define the place and role of the individual in community.

Prior Learning, handled in various ways, is one general method, usually related to practical rather than theoretical knowledge, to professional, technical and vocational development rather than the traditional content subjects of past definitions of liberal arts. Due to the changing nature of liberal arts over the centuries and the current re-definitions of liberal arts for today, prior learning has a valid place as a method for documenting learning in professional, technical and vocational areas. In practice many of these areas have been incorporated into current definitions of liberal arts. As we relate more and more to multicultural elements, prior learning may prove to be a method that is, along with others, able to address this increasingly important aspect of learning. International travel and encounters with other cultures is but one area that may be appropriate for a prior learning approach for adult learners.

The method of prior learning, which usually includes some form of learning outcome inventory, description of the context and experience in which learning occurred, documentation of learning and a reflective statement, may need expanded attention to stress identifying general principles, concepts and methodologies encountered, and exploration of how to apply them to new and different situations. In the past the emphasis has always been to relate the theoretical academic knowlege to the practical upon leaving the learning environment of the University.

Prior learning challenges us to relate life learning to specific academic disciplines, in other words, a reversal of the traditional process of learning. Prior learning is well suited to the expanding definition of a liberal arts foundation in the Undergraduate Program.

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THE FACULTY SPONSOR/STUDENT CONNECTION IN NONTRADITIONAL PROGRAMS: CAN WE REALIZE OUR POTENTIAL?

Brenda Neumon Lewis

Colleges and universities across the country have been responding in various ways to the influx of older students into institutions of higher education. Most notable among thase responses is the increased number of degree programs specifically designed to meet the needs of this new population. While these programs vary in scope, design, and services, many have a common feature; that is, some aspect of the program's services is delivered by a faculty sponsor. The faculty sponsor can encompass different roles depending upon the nature of the program. These include, advisor - assisting the student in proper course selection or curriculum development; consultant - providing the student with information about the field; mentor - modeling the behaviors and values of professional in the field and connecting the student with others who have similar interests; or, evaluator assessing experiential learning and independent study activities.

The Interdisciplinary Studies Program (IDS) at Old Dominion University, falls within the realm of flexible degree programs established to serve nontraditional students. Through Interdisciplinary Studies, a student is able to creatively combine courses from different disciplines into an individualized curriculum of study. The program's flexibility allows the course of study to be created around either an educational interest or a career goal.

To be accepted into IDS, a student must submit a comprehensive curriculum plan which outlines a clearly defined and attainable goal. This plan includes a narrative which gives the background of the student, discusses objectives and provides a justification for the courses included in the plan. The second part of this plan is a detailed list of courses and experiential learning activities that the student has taken, or hopes to take, to complete the degree.

It is also required that the student secure the assistance and the endorsement of two faculty sponsors. Each of the sponsors must represent the fields or disciplines within the student's curriculum. Their responsibility is to assist the student in the development of a sound plan, and to provide on-going guidance and support. This means assuming one or more of the aforementioned roles depending upon the needs of the student.

Interdisciplinary Studies faculty sponsors are uniquely positioned to have significant impact on the returning adult learner. They have expertise in the field in which the student has interest, and they have firsthand knowledge about the courses which can be a part of the student's plan of study. The degree to which this opportunity has been capitalized upon, however, has been varied. In some cases, the student "connects" with a strong faculty sponsor and a relationship evolves which makes that all important qualitative difference to the student's educational endeavors. However, in too many cases, a loose relationship is established, and the student's plan is perfunctorily approved without sufficient guidance or support. It is in these instances when the potential in the faculty sponsor/student connection is lost. A loss which hampers and reduces the effectiveness of nontraditional programes.

The purpose of this paper is to explore some viable strategies for improving these relationships, thereby, enhancing the experiences of the faculty sponsor, maximizing the process of learning for adult students, and improving the quality of nontraditional programs.

Characteristics of the IDS Student

The IDS program serves a diverse student population with varying educational and vocational interests. It is particularly attractive to adult nontraditional students. What ties IDS students together is their similar orientation to learning, which is pragmatic and career centered; and, their need to cope with the exigencies of changing life roles or changing career demands. Specifically, they exhibit the following characteristics:

- they have a gap in their education
- they have transfer credit
- they have multiple life roles
- they live off campus

Although a case can be made that all students could benefit from stronger linkages with faculty, the student participating in a program like IDS has special needs which should be recognized. First, unlike traditional students, the IDS student does not have a ready source of support. The traditional student is able to immediately begin to develop an espirt de corp with fellow "majors" while the IDS student is often creating a unique degree of which she or he is the lone pursuer. Secondly, because of the constraints of other life-role responsibilities, the IDS student spends limited time on campus. Consequentently, the avenue of student groups also becomes closed as a source of support.

Further, IDS students are not provided with pre-established curriculum guides, and instead, must formulate a course of study. While this is the aspect of the program which they find most attractive, it is a responsibility they are initially unprepared to handle. Typically, they have a notion of what they want from an education but lack the focus to turn that into a specific action plan. This is Particularly true of reentry women who are often interested in everything and resist making a commitment to one course of study.

Finally,the are very concerned about getting through the program as quickly as possible, and with the utility of the courses within their curriculum.

Characteristics of the IDS Faculty Sponsor

The faculty who provides sponsorship to IDS students are part of a traditional faculty structure. That is, they teach full-time, serve on committees, and are members of disciplined-based and often parochial departments. More importantly, thay are concerned with a common issue among traditional faculty--tenure.

Tenure recommendations and merit raises for traditional faculty are tied to a combination of teaching, research, and service. In most institutions, more weight is given to research over teaching or service. Thus, while faculty sponsors express a desire to improve the quality of their relationships with adult students, practicality dicates that they expend their effort into what will be rewarded, i.e. publishable research.

Concomitantly, time is an important concern among IDS faculty sponsors. They realize that working with nontraditional students developing individualized degrees can bea very time consuming and labor intensive endeavor.

Thirdly, the trend in academia toward the off-loading of academic and career counseling to professional counselors, and the tendancy for faculty to take a very disciplined view of the curriculum, makes many faculty sponsors unsure of how to work with the student developing an interdisciplinary degree. This uncertainty may increase if the faculty has had little contact with nontraditional students.

Finally, the faculty who participate in IDS is concerned about the quality of education. They view the rising attitude of vocationalism of all students with some dismay and worry that too many students are graduating without a solid liberal education.

Common Issues Which May Impact the Relationship

When we look at the characteristies and concerns of faculty sponsors and compare them with the characteristics and concerns of students, several common issues arise. It should be noted however, that often different perspectives are held on these issues by the student and the faculty member. The following scheme outlines these issues:

COMMON ISSUES

Student	Faculty

TIME

• Need to balance school with other life roles, (work, children). Difficult to schedule appointments, and to take a number of courses at one time. • Want to finish school quickly.	• Must priortize academic responsibilities. Concerned with time for research, teaching, committee work, etc. • May adhere to traditional schedule (10:00 - 3:00)

PURPOSE FOR EDUCATION

• Student very career oriented. Concerned with utility of degree - must lead to a specific job.	• Faculty concerned with quality of education and strength of degree program.

CURRICULUM

• Limited knowledge or understanding of curriculum development but attempt to develop career related program.	• Traditional view of curriculum, strong identity with a specific discipline.

The degree to which the differences on these issues is reconciled, determines the degree to which a quality faculty sponsor/student connection can be established. The challenge to administrators of nontraditional programs like Interdisciplinary Studies, is to assist in the development of delicately balanced relationships that recognizes the needs and constraints of both the student and the faculty sponsor. Toward that end, the following strategies are being employed by the Interdisciplinary Studies Program:

Strategies to Use With Students

1. Provide students with a clear overview of the requirements for creating and managing their curricula. Students must realize early on that they, not the faculty sponsor, have the responsibility for formulating a worthwhile course of study.

2. Provide students with tips on how to select a faculty sponsor. Personality types, similar interests and similar work styles can have impact on the quality of the relationship.

3. Encourage students to be prepared for a meeting with a potential faculty sponsor. Research the field, reflect on goals, anticipate outcomes, etc.

4. Remind students to be sensitive to the time constraints of faculty members. Set-up appointments and keep them.

5. Advise students that the initial meeting should be one in which the expectations of both parties is clearly stated.

6. Make sure the student is aware of campus resources (counseling center, career library) and realizes that the faculty sponsor is but one source of informtion and support.

Strategies to Use With Faculty Sponsors

1. Clearly delineate the expectations you have as program administrator for the faculty sponsor. Outline duties, responsibilities and the average amount of contact hours it can take.

2. Provide faculty with current information about adult learning and development so they recognize that there are some differences between traditional and nontraditional students.

3. Develop a cadre of faculty sponsors who can share information and provide support to new faculty sponsors.

4. Keep faculty sponsors apprised of resources for nontraditional students.

5. Encourage faculty sponsors to assist the student in setting short-range goals so that progress or problems become apparent early in the relationship.

6. Build faculty sponsorship into the established reward system. For example, try to negotiate faculty sponsorship to be equated to thesis direction or committee work etc.

7. Make sure that faculty sponsors know that the work they do is valued. Acknowledge them through letters of praise, informal get-togethers, telephone calls, faculty sponsor of the year award etc.

Conclusion

The development of a quality relationship with a faculty sponsor can be very beneficial to the nontraditional student. It can minimize much of their initial anxiety and frustration; reduce the time it takes to develop a plan of study; and provide them with the rudder they need as they learn the academic system and readjust to academic life.

Faculty sponsors who really begin to help nontraditional students develop sound but, useful curricula, solidify their goals, and achieve success, will also reap benefits. They can begin to see the application of theory in practical ways. They can stretch their teaching capabilities as they realize that the process of learning is enhanced by the utilization of a variety of methods. Finally, they will be enriched by the many experiences that the nontraditional student brings to the learning process.

Can we realize the potential in the faculty sponsor/student connection? Success is not guaranteed, but it's certainly worth a try!

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AN INVESTIGATION OF PORTFOLIO USE FOR NOVA UNIVERSITY PROGRAMS FOR HIGHER EDUCATION APPLICANTS

Thomas W. MacFarland

Background and Significance

While artists have traditionally documented their skills, competencies, and experiences through the use of a portiolio, it has only been a recent phenomenon in higher education that graduate students have been either asked or required to document their educational experiences through the use of a portfolio. Although portfolio use in higher education can serve many purposes, the rationale for requiring graduate students to develop and submit a portfolio, either in addition or as an alternative to traditional documentation, is based upon the premise that the college classroom, laboratory, or library are by no means the only places where learning occurs.

Purpose of the Investigation

The central staff of Nova University Programs for Higher Education recognizes that traditional documents such as official college transcripts, course catalogs, syllibi, and letters of recommendation, although helpful, are generally thought of as being insufficient regarding the full documentation of all pertinent learning experiences. Accordingly, the purpose of this investigation was to explore the feasibility of using a portfolio as an alternate means for potential Nova University Programs for Higher Education students to document their learning experiences. The purpose of this investigation is presented in view of the fact that the mean age of Nova University Programs for Higher Education students is well over forty years and that, as a program requirement, all Nova University Programs for Higher Education students are working professionals.

Research Questions

1. Is it possible to identify experientially oriented criteria that relate to the many parameters of Nova University Programs for Higher Education?

2. If it is possible to identify experientially oriented criteria that relate to the many parameters of Nova University Programs for Higher Education, then is it possible for applicants to Nova University Programs for Higher Education to address those criteria by developing an individual portfolio of experiential learning?

3. Specifically, is it possible for applicants to Nova University Programs for Higher Education to adequately address, recall, and transcribe those criteria in a readily understandable form and style?

4. Based upon the possibility of identifying experientially oriented criteria that relate to the many parameters of Nova University Programs for Higher Education, is it possible to develop a reliable and valid instrument to measure the various portfolio criteria?

5. Is it appropriate to conceptualize student progress and achievement within a highly structured program such as that offered by Nova University Programs for Higher Education to the many notions and overall philosophy associated with adult education?

6. Is it appropriate and desirable to require applicants to Nova University Programs for Higher Education to undergo the many demands and rigor of the portfolio process as a precondition to acceptance by Nova University Programs for Higher Education?

7. Is it appropriate and desirable to incorporate portfolio criteria that might force applicants to Nova University Programs for Higher Education to divulge private, sensitive, and possibly classified information?

8. Finally, what direction shall the requirement of portfolios pursue? Shall portfolios, if the relationship of criterion rating to program standing is determined, play an integral role in the application process? Specifically, shall the demonstration of certain criterion ratings be a precondition to entrance into Nova University Programs for Higher Education? Or instead, shall portfolio use only play a role in the counseling and mentorship process incumbent upon those professionals associated with Nova University Programs for Higher Education?

Portfolio Criteria

Various terms associated with this investigation may require clarification. Terms specifically requiring such clarification include the following:

01. Resume of Work Experience: a portfolio criterion that includes not only the documentation of work experience in a readily understandable form, but also a declaration of primary and seconday responsibilities of professional positions with a synopsis of significant learning experiences that have resulted from professional positions held.

02. Formal and Informal Learning Experiences: a portfolio criterion that requires applicants to address how opportunities for professional growth resulted from both formal learning experiences (e.g., coursework) and informal learning experiences (e.g., involvement in committees, reading, and any activity other than coursework).

03. Involvement in Professional Organizations: a portfolio criterion that not only requires the identification of former and present professional affiliations, but also requires applicants to demonstrate their degree of professional activity and involvement. Additionally, applicants are asked to describe how involvement in non-professional organizations, when appropriate, has contributed to their professional development.

04. Professional Accomplishments: a portfolio criterion that provides applicants the opportunity to document activities that have brought professional recognition (e.g., achievements, awards, grants, licenses, patents, publications, etc.).

05. Independent Learning: a portfolio criterion that provides applicants the opportunity to document how totally independent and non-required scholarly activities (e.g., reading, correspondence with scholars and recognized experts, and attendance at special sessions) has contributed to their professionally-oriented learning.

06. Leadership Style: a portfolio criterion that provides applicants the opportunity to document how, within their professional environment (e.g., administration, teaching), they are able to initiate actions and influence others so that desired outcomes were obtained.

07. Research Experience: a portfolio criterion that provides applicants the opportunity to document their previous and present roles in research projects. Research is conceptualized as the orderly investigation of a problem and is not restricted to investigations of a statistical orientation. Additionally, applicants are asked to describe three researchable problems at their institution so that they may demonstrate their understanding of the research process.

08. Miscellaneous Activities: a portfolio criterion that provides applicants the opportunity to document ancillary, yet potentially

important, activities such as computer familiarity, hobbies, travel, etc., that may have a bearing on professional development.

09. Strengths and Weaknesses: a portfolio criterion that provides applicants the opportunity to demonstrate not only those areas where they excel and those areas where they feel uncomfortable, but also to state strategies to maximize advantages and minimize threats.

10. Statement of Goals: a portfolio criterion that provides applicants the opportunity to discuss their personal goals and the role those goals may have within the framework of a planned and rigorous Ed.D. program.

11. Portfolio Appearance: a summative portfolio criterion that is used to determine if all portfolio criteria have been addressed, if documentation and communication has been thorough and accurate, and if the general appearance of the portfolio indicates a high degree of professionalism (e.g., general writing style, margins, spelling, syntax, and typing).

Procedures and Methodology

The purpose of this investigation was to explore the feasibility of portfolio use as a potential method for Nova University Programs for Higher Education applicants to document their prior learning experiences. As such, the population of this investigation included all Nova University Programs for Higher Education students. Specifically investigated were Nova University Programs for Higher Education students who were enrolled during the Fall, 1985 quarter.

It must be mentioned that initial investigation of portfolio use was "goal-free." That is to say, there were no preconceived objectives or desired outcomes incorporated into the initial investigation. As an example, the propriety of credit for experiential learning was not considered during the initial investigation of portfolio use. Instead, it was merely noted that portfolio use could eventually result in awarding credit for experiential learning.

Accordingly, both external and internal environmental scanning were performed to assess the unique characteristics of Nova University Programs for Higher Education. From that initial conceptualization, eleven criteria potentially appropriate for portfolio inclusion were identified: Resume of Work Experience, Formal and Informal Learning Experiences, Involvement in Professional Organizations, Professional Accomplishments, Independent Learning, Leadership Style, Research Experience, Miscellaneous Activities, Strengths and Weaknesses, Statement of Goals, and Portfolio Appearance. The eleven criteria were organized into a formative portfolio and corollary assessment instrument and were distributed to students for voluntary return. After data relating to frequency of portfolio return (approximately 25 percent) were organized, the issue of portfolio evaluation was addressed. Five randomly selected portfolios, representing a sample of approximately ten percent of all returned portfolios, were initially evaluated. Five judges, all professional educators associated with Nova University, evaluated the five randomly selected student portfolios two separate times (test-retest).

Portfolio criterion rating was based on a Likert-type scale: 0 (Absent), 1 (Low), 2, 3 (Moderate), 4, and 5 (High). Because of low Ns, test-retest reliability was assessed from the perspective of frequency of acceptable incongruence (greater than or equal to 80 percent congruence) among all test-retest portfolio evaluations. Data regarding the frequency of acceptable incongruence of portfolio ratings are presented in Table 1.

Consideration must be placed upon the following criteria: 05, Independent Learning; 06, Leadership Style; 07, Research Experience; 08, Miscellaneous Activities; and 09, Strengths and Weaknesses. Each of the five criteria exhibited objectionable incongruence (less than 80 percent congruence) between composite test-retest ratings at an unacceptable rate (less than 75 percent of the time, e.g., 7 or more of 25 entries) and were accordingly regarded as being unacceptable for the purposes of this study. Efforts will continue to refine the ability to reliably measure those constructs. Then, the potential predictive power of these constructs can be addressed.

Table 1

Frequency and Percentage of Portfolio Criteria Ratings Exhibiting Greater Than or Equal to 80 Percent Agreement Among All Test-Retest Evaluations by Criterion

	Criterion										
Judge	01	02	03	04	05	06	07	08	09	10	11
A	4	4	4	4	3	3	5	2	4	2	4
B	5	5	4	5	4	4	3	2	3	4	5
C	5	4	4	5	4	5	4	5	5	5	4
D	5	5	4	5	3	4	4	4	2	5	5
E	3	3	4	4	3	2	2	2	3	4	2
Total	22	21	20	23	17	18	18	15	17	20	20
% ≥80 % Test-Retest Agreement	88	84	80	92	68	72	72	60	68	80	80
% <80 % Test-Retest Agreement	12	16	20	8	32	28	28	48	32	20	20

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FACILITATING NON-TRADITIONAL LEARNING WITH COMPUTER CONFERENCING

William J. Seaton

The vast majority of learning options (i.e. correspondence courses) for non-traditional (distant) learners involve extremely limited interaction or no interaction at all. By simulating the classroom through computer conferencing, Thomas A. Edison State College has created a learning option specifically designed for distant learners which provides interaction without campus attendance by integrating telecommunications and computer technology into its Guided Study program. This program is known as Computer Assisted Lifelong Learning, or CALL.

The Guided Study program was originally integrated into Edison's existing offerings to meet the educational needs of the distant learners by freeing them from the classroom as the primary place of learning.

Guided Study is a system of learning specifically designed for the non-traditional learner. It allows non-traditional students to continue pursuing their education without the confinement of classrooms, or campus schedules. The Guided Study program is structured differently than courses traditionally have been in colleges and universities. The courses are intensive, interdisciplinary studies, and as such are awarded a greater amount of credit (usually 6-9 semester credits). Much of the study is done independently by the student under the guidance of a faculty mentor, very much like the system originally developed at Oxford and Cambridge Universities.

Students are provided with a detailed week-by-week syllabus which guides them through the reading and written assignments. In addition to the basic texts, each course contains a interactively written study guide, a series of unit texts (readings), and video programs. Self-assessment tests and exercises are incorporated into the materials. The video materials are broadcast over Public Broadcasting stations, and most are available on 1/2 inch cassette for use on VHS and Beta VCRs.

Because students do not attend classes and lectures, in-depth reading is part of each course. The in-depth nature of each course allows each student to gain a thorough knowledge of the areas chosen for study. Each course is equivalent to taking two or three courses during a semester; the advantage being that their study is concentrated on a single subject area, thus focusing their efforts.

All courses in the Guided Study program involve faculty mentors who assess students' progress using written assignments and proctored examinations. Faculty mentors are also available for consultation concerning course content. They are hired for specific courses based upon their academic expertise, current teaching experience, and commitment to non-traditional education. They are essential components in the success of the program.

The computer can serve non-traditional learners as a manager of learning -presenting assignments, providing rapid response of results, and administering and scoring diagnostic examinations of knowledge. Its pedagogical advantages are rapid communication, the capability to individualize learning, and enhanced motivation.

Computer conferencing is a relatively new term used to describe software packages that allow people to communicate and interact with each other in completely new and more effective ways. Computer conferencing is an advanced form of electronic mail which allows users to initiate and participate in group discussions on various topics.

Users in this case are those people or students who have access through the use of a computer to the computer conferencing software package residing on a "host" computer. Using the appropriate telecommunications protocol, students dial into the host and access this system regardless of time or distance from the host computer. Any personal computer (from a $49 Timex to a $4,900 IBM) equipped with a modem and telecommunications software can dial into the network.

Specifically for this project, students will be given access rights to the CONTACT system resident at New Jersey Educational Computing Network (NJECN). Course mentors will design and monitor the conferences in which the students are participating. These conferences will simulate specific topic discussions which normally take place in the classroom. However, through computer conferencing, the time that these discussions begin and end really has no impact whatsoever. In fact, students will be able to join the conference, review all relative topic discussions, and add to the discussions regardless of the time of day. Likewise, faculty mentors will have the flexibility of working with the class or individual students at any convenient time.

Students can complete assignments using the word processing capabilities of their personal computers, send them to the faculty mentor's electronic mailbox for review as well as transmit questions about the course material. The faculty mentor reviews the assignment, answers the student's questions, and sends this information along with comments to the student's electronic mailbox. The student reviews these messages and proceeds to the next lesson in the course.

Creating The Infrastructure

The courses are mediated by a unique telecommunications system, and will allow a student anywhere in New Jersey (or the world) to complete any and all aspects of a college degree through the use of a computer.

The program evolved from extensive conversations with technical consultants concerning the development of a computer network system which would allow a wide range of personal computers and terminals to access the College's computer data base. It was determined that the use of a pooled computer facility would be the most effective and cost efficient. By utilizing the services of the New Jersey Educational Computing Network (NJECN), the College has interconnected NJECN's two large IBM mainframe computers and telecommunications systems with Edison's computer systems. NJECN's services are currently used by all nine state colleges, Rutgers University, NJIT, the New Jersey College of Medicine and Dentistry, and numerous state agencies and private industries.

Using NJECN's current telecommunication capability, users will dial into NJECN's Comten communications processor to gain access to the network. (The Comten front-endprocessors currently support a wide range of communications protocols. In technical terms, these protocols include 3270, asyncronous, bisyncronous, SNA, TTY, and X.25. These protocols are the most commonly used nationwide and will insure that the vast majority of personal computers and terminals will be able to successfully access the CALL Network.) The Comten proceasor verifies the student's access rights and route the student into NJECN's mainframe computer. Students are then presented with a menu of current activities available. The student selects an activity and proceed through the system.

Activities which require data from the College's in-house data base are completed through a direct line from NJECN's system to the College's system using X.25 communication protocol. Students who request data from the College's computer send the request through NJECN's computer to be received by the College's computer. Once the request is received, the appropriate applications are enacted and the necessary data from the College's computer will be forwarded back to NJECN for the student's review.

The access system will assure that students will not be able to modify any data on the College's computer, since they will at no time have direct access to the College's computer. Security on NJECN's computer is completed through appropriate log on routines which will allow access only to Edison's program. Users will not have access to any other services of NJECN's computer system and procedures are developed to monitor students' activities and length of log ons.

Establish Telecommunication Linkages

Effective telecommunication links between students and NJECN, and between NJECN and Edison are critical to the success of the program. It was the conclusion of both that optimum efficiency will be achieved if a nationally available computer network was employed for student/NJECN connections, and if an appropriate communications protocol (X.25) was used to link NJECN with Edison.

In practice, the program operates as follows: A student with a terminal and a modem, using a nationally available computer network, dials the number and access codes provided by Edison which connects to and is "validated" by the Comten processor. Depending on the information the student requests, the Comten processor either admits the student to appropriate software operating on the NJECN IBM computer or contacts the Edison computer (via X.25) for specific information from the student's record which is then relayed to the student through the Comten processor. The Comten processor, then, acts as a switch between the student and NJECN or Edison, while the national computer network and X.25 are vehicles which carry information to and from the student. In summary, this component will allow students to access the CALL Network from any location in the country.

Conclusion

Several years ago, it became abundantly clear that adult learning in America was changing rapidly and that this change was going to have a significant impact on higher education. The most visible change was the decline in the percentage of traditional aged students in the classroom as increasing numbers of older and part-time students took their seats. Today more than one-third of all students enrolled in credit courses are over the age of 25. Most of these students are part-timers, and many not only hold jobs but are raising their own families. This student is looking for an alternative to the traditional approach to learning, not as an easier way to a degree but because their life circumstances demand it.

While the number of adult learners is placed at over 60,000,000, only about one-third of these are learning through colleges and universities. Tens-of-thousands are pursuing their education through the work place and business sponsored seminars and training activities. These learning activities are crucial for the occupational survival of the participants, but often do not engage the student in the classical elements of a liberal arts education.

The program outlined above is an attempt to address this issue. It seeks to provide non-traditional learners with the fundamentals of a sound liberal arts education, using the new electronic technologies to deliver that education. If this project is successful, it will demonstrate that philosophy and modems need not occupy separate worlds--one cloistered in ivy and the other in silicon--but that together they can provide learners with the vision and tools needed for the future.

Below is a brief listing of some courses which are available or planned for inclusion in the program:

People and Organizations

This is a course concerned with the processes at work in complex organizations, with special emphasis upon the mechanisms of formal and informal organizational control.

The Adult Years

This is an introductory, interdisciplinary social science course that explores the inner lives of adults and the relationships of those inner lives to family, work, education, and the community.

Systems Organization

Systems Organization is an integrated introduction to Systems Analysis and Management.

Complexity, Management and Change

The aim of this course is to enable one to recognize, pinpoint, analyze, and make decisions regarding complex real-world situations which managers and supervisors have to confront.

Computers and Society

Computers and Society introduces the student to computing systems and their effect on our society.

Literature of the Americas

Literature of the Americas is a comparative literature course in Spanish-American, Afro-American, and French- and English-Canadian fiction.

War and American Society

Beginning with the Revolutionary War, and continuing through the Vietnam conflict, War and American Society examines the ways in which America has dealt with war.

Introduction to the Humanities

This course examines the history and cultural achievements of man.

Exploring Language: Thinking, Writing, Communicating

Exploring Language explores the social, psychological, and political implications of language and teaches the fundamentals of clear, concise writing.

Greece 478-336 B.C.

This course is a study of Greek civilization from the end of the Persian War to the rise of Macedon, centering on Athens.

The Religious Quest

This course is designed as an intensive course in world religions.

The Age of Enlightenment

This course explores the culture of the "Age of Reason" at its height.

Times Harvest: Exploring the Future

This course examines the major issues and philosophies of future studies along with the methodologies and techniques used in future research.

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SEMESTER AT SEA: AN INNOVATIVE APPROACH TO LEARNING

Cynthia Stone

Presentation Preface:

It is important to preface Non-Tradtional Educational Approaches in general and this paper in particular with an exploration of why society has difficulty accepting non-traditional educational approaches. Our collective non-tradition programs would have greater impact if this could be better understood, confronted, and addressed.

First, it must be recognized the need for attitudinal changes. It must be realized that the new the different (non-traditional) is always suspect. Experiment and exploratory programs are guilty "nonworkable) until proven innocent. Unfortunately there is not a pravailing nurturing atmosphere of receptivity to encourage innovative approaches in education. And there is no room for failure in new approaches, since new programs are under such critical scrutiny compared to traditional approaches. The new must be twice as good also just to merit serious consideration

What is the reason for rigidity to change? Regretfully there is a refusal to realize the world is changing and educational approaches must change as well to keep pace with a complex world in transition. Fear is a reason to resist change also people and educators are not comfortabla with the unfamiliar, the unknown. They become defensive as well. It is a threat of failure that the traditional ways are not working. Understanding is needed to reassure traditionalists that non-traditional approaches do not intend to overthrow or replace the traditional, but to supplement, enrich, and to offer healthy alternatives or choices.

The educational field should be counted on to be totally supportive of new concepts and in the vanguard to encourage them, since they by definition are champions of the inquiring mind, critical thinking, and in quest of the best. But instead they are often resistent to change instead of being open to possible improvements and recognition that not everyone should be expected to maximize his academic experience to the same standard type of education we must be allowed to march to differant drummers.

This enlightening larger vision that all approaches must be welcomed must come through understanding--the mission of this conference. Thus, I applaud Georga Mason University's Fourth Annual National Conference on Non-Traditional/Interdisciplinary Programs and take professional pride in being a part of it. Its supporters must be commended as "possibilities" thinkers and doers, charting a precarious but consequential course. Julia Ching Professor of Philosophy Yale University, said: "The purpose of education is the preparation of the whole person for tha whole of life." Society in general, traditionalists in particular must see there is no one way of doing this.

> "We must educate people today for a future in which the choices to be faced cannot be anticipated by even the wisest among us now."
>
> - John F. Kennedy

Our world is becoming increasingly complex and interdependent. In such a world, it is essential we adopt imaginative educational approaches which equip students with the tools and heighten perspectives to prepare them for the challenges they will face.

The international education program of the Institute For Shipboard Education or Semester At Sea typifies this needed educational approach. The Institute is a non-profit fully-accredited around-the-world educational voyage to promote global awareness, international understanding and enriching cultural exchange.

Semester At Sea epitomizes innovative and compelling educational approaches through an active integration of academic and experiential learning. It offers a broadly based program focusing on the comparative aspects of societies and world issues; it adds an important international dimension to a student's education that impacts on the rest of his life. More than 18,000 students from five hundred colleges and universities have participated in Semester At Sea. (See appendix for listing of participating schools and summary of program evolution).

This is how it works. And it does work! Each semester five hundred students, staff, and faculty come together aboard the S.S. Universe. This ocean liner converted to a floating university becomes their self-contained campus and the world their laboratory for exploration and discovery on their one-hundred day voyage sailing in January and September. Selected countries in its world itinerary represent a stage for an international forum that fosters a newly discovered world view. Its itinery includes: Spain, Greece, Turkey, Israel, Egypt, India, Sri Lanka, Hong Kong, Mainland China, Taiwan, Korea, and Japan.

The rare close spirit of the shipboard community plus the shared travel exposure create a unique educational climate maximizing learning and student/teacher relations. While at sea students from colleges across the country and abroad earn 12-15 transferrable credit hours applicable to their home universities. A diverse voyage-related liberal arts curriculum of over fifty courses is combined with interport lectures, related films, seminars and extensive travel opportunities for an incomparable academic and personal learning-growth experience. Scholarships, work-study and adult education programs are also available (See SAS brochure and documentation in appendix for details).

The Institute For Shipboard Education (ISE) is unique. It provides a comparative rather than immersive context, providing first-hand exposure to the world at large with its contrasting peoples and cultures.

Semester At Sea uses a ship for its vehicle transporting students physically, as well as intellectually from learning from their voyage-related courses to living them. The shipboard community is an ideal living-learning self-contained environment for instruction, discussion, study, evaluation, and reflection.

The Semester At Sea program provides:

- Close student-teacher relationships carrying the educational dialogue beyond the classroom.
- Small classes with optimum individual attention and involvement.
- Highly qualified faculty from major universities nation-wide and abroad (See appendix for listing of participating professors).
- In addition to classes aboard ship, area experts, interport lecturers and dignitaries join the voyage at each phase of the journey, broadening the scope of information and expertise available to a student's international experience. (Refer to Appendix for interport lecturers).

Student philanthropic and international exchange projects are an integral part of each voyage. Examples of this are:

- Students of Service (SOS) - raises approximately $12,000 each voyage through Shipboard activities and fundraising projects to be distributed abroad to needy and worthwhile causes. The student body on each voyage determines the allocation of these funds (See Appendix for SOS Fund-raising Reports).
- Ambassadors Club - Fosters international exchange and understanding hosting foreign students, professors and dignitaries aboard ship and in foreign parts.

Sponsored by the University of Pittsburgh and endorsed by universities nation-wide and abroad, its sponsoring president Wesley Posvar states: "Semester At Sea is an academic experience without parallel in the world."

Dr. Lloyd Lewan, former dean and current Senior Consultant for the program, best captures the long-term societal importance of Semester At Sea in his Forward to the book Discovery, a photographic essay illustrating the Semester At Sea story (The Forward in full follows. Also explore the enclosed copy of Discovery).

> "Semester At Sea is about the future . . .
> Our world is shrinking; countries have become interdependent. We must strengthen the bonds between peoples and nations. Our success or

> failure will determine the quality of our collective lives in the years ahead. I believe either we educate young people for the reality of world interdependence, or we miseducate them; we cannot be neutral." - Lloyd Lewan

More than a three and a half month journey of learning and discovery about ourselves and the universal commonality shared by all peoples, as well as the crucial issues convulsing our increasingly small world. Shipboard education is a genesis for continued growth that is unmatched. It creates heightened visionary perspectives and provides the proper tools for realistic and responsible leadership in a challenging future.

Cynthia Stone is Associate Director of Admissions, Institute for Shipboard Education, Orange, California.

Foreword

"We must educate people today for a future in which the choices to be faced cannot be anticipated by even the wisest among us now."

John Fitzgerald Kennedy

It is a special privilege for me to write the foreword for this extraordinary photographic essay which depicts so well the experience many know as "Semester at Sea." For those who have not had the opportunity to participate in shipboard education, I hope this work will give you a feeling for the warmth, understanding, and personal growth that make this kind of education so special. For those who have experienced a semester at sea, I hope this collection of photographs will keep alive your commitment to international peace and understanding.

Semester at Sea is about the future--your future, the future of your children, and the future of all those who inhabit planet earth. Our world is shrinking; countries have become interdependent. We must strengthen the bonds between peoples and nations. Our success or failure will determine the quality of our collective lives in the years ahead. I believe that either we educate young people for the reality of world interdependence or we miseducate them; we cannot be neutral.

Semester at Sea is an attempt to address this reality. The program was created to take learners on a self-contained vessel with a select group of scholar/guides on an around-the-world voyage. Students can see for themselves the similarities among peoples and the wonderful differences we know as cultures. Through shipboard courses and guided field experiences, the program provides the framework for a lifetime of learning, concern, and commitment.

Today more than ever, young people must make decisions for themselves, their nations, and their planet with equal attention and concern for all three. No nation today can make any realistic, prudent, or lasting decision without considering the impact on other peoples and nations. Future leaders of all nations must be educated with a long-term view and an understanding of global realities. For the young to use their own lifetimes as bench marks for change is simply not sufficient. The great challenges of the twenty-first century--nuclear weaponry, terrorism, over-population, declinign natural resources, hunger, and human rights--cannot be solved in national isolation or in an individual's lifetime. A long-term world view passed from generation to generation must become the beacon for world peace.

The Semester at Sea program contributes to this global view by exposing students to the world's problems, by educating students about world politics, and by openly explaining the ineffectiveness of short-term solutions. Participants come away with the realization that learning is not limited to the classroom, and that learning can be enjoyable. Students become aware that teachers are human beings with much to offer outside the classroom, and that fellow students are often insightful teachers. They discover that reading about a culture, and then experiencing it, creates unparalled learning excitement.

The important aspects of the program for the larger society are the students' increased awareness of global issues, increased tolerance for diversity, and expanded views of their own culture. These new insights make them better students on their home campuses. They tend to create a ripple effect, which heightens awareness of world issues among their families and their student colleagues. Program participants express a commitment to educate their children in a way that will include international involvement.

Keeping shipboard education viable has required dedication and commitment from many sources. There are, however, probably five factors that have most contributed to the survival of shipboard education. First are the alumni, for without them telling others of the merits of Semester at Sea, there would be no program. The quality and quantity of future participants depends almost entirely on the alumni. Second, the leadership of the Institute for Shipboard Education and the university sponsors, especially those who have served on board ship, has been more significant than most realize. Third, the men and women who have served as visiting faculty and staff over the years have been central to the success of each voyage. Fourth, the concept of shipboard education is a sound one, most appropriate to this time and place in our history. It is an excellent example of the whole being greater than the sum of its parts. Fifth, the contribution of the late C. Y Tung must be considered the major force in maintaining the program over the last decade.

Semester at Sea is an extraordinary educational enterprise. It is the largest undergraduate international program in the world today. Each year more than 800 college students participate in an academic voyage around the world. A nonprofit educational corporation contracts with a major American university, and with one of the largest shipping companies in the world, to produce the Semester at Sea program. When six hundred students, faculty, staff, and crew come together for the first time on the day of departure, they creat a fully functioning university.

While traditional study abroad is designed to prepare students for an in-depth experience in a single culture, Semester at Sea provides a unique opportunity to gain an introduction to a minimum of ten cultures from both the developed and developing world. Semester at Sea is an international extension of the traditional undergraduate program. It may also be characterized as a prelude to other international experiences. Most who experience Semester at Sea are motivated to further international study and travel.

The full internationalism of the program is my dream for the future of Semester at Sea. My hope is that one day large numbers of students from several countries will share a ship or many ships for this valuable experience. Shipboard education will have realized its international potential when prominent universities around the world join forces to support experience-based international education. Perhaps one day a fleet of ships sponsored by the United Nations will fulfill this dream. This would be the greatest experiment in cross-cultural living and learning even undertaken. I believe that such a program could be the loom on which the fabric of world peace is woven.

It has been hard in these few paragraphs to capture the essence of Semester at Sea. Having been involved in shipboard education for eighteen years, I believe in young people more than ever--and especially in their ability to lead us into the twenty-first century. I also firmly believe that Semester at Sea is one of the most important programs in higher education today, providing the basis for a greater understanding of the complexities, problems, and challenges that must be addressed by their generation.

My faith in God, humankind, and the future is unshakeable because I have met and supped with the peoples of the world. Everywhere there is a deep commitment to solving our mutual problems. I am convinced that together we can create a more peaceful, a more plentiful, and a more pleasing world.

Lloyd Lewan
Former Executive Dean, Semester at Sea
April 1985
Denver, Colorado

Cynthia Stone, Associate Director of Admissions, Institute For Shipboard Education/Semester At Sea.

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